

TA-E731X

SERVICE MANUAL

US Model

- This set is almost the same as model TA-E721 (US) previously produced. Therefore, see the service manual for the information which is not contained in this service manual
- This set is the AV control amplifier section in SEN-V100CD.

- Items marked "*" are not stocked since they are seldom required for routine service. Some should be anticipated when ordering these items.

Page 31 4-1. FRONT PANEL SECTION

TA-E721 (US)				TA-E731X (US)			
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
3	X-4942-294-1	PANEL ASSY, FRONT		3	X-4944-103-1	PANEL ASSY, FRONT	

Page 32 4-2. BACK PANEL SECTION

TA-E721 (US)				TA-E731X (US)			
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*57	4-945-755-41	PANEL, BACK		*57	4-945-755-81	PANEL, BACK	

Page 41 ACCESSORIES & PACKING MATERIALS

TA-E721 (US)				TA-E731X (US)			
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
	1-465-712-11	COMMANDER, STANDARD (RM-P312)			1-467-345-11	COMMANDER, STANDARD (RM-P332)	
	3-754-931-21	MANUAL, INSTRUCTION (ENGLISH)			3-756-651-21	MANUAL, INSTRUCTION (ENGLISH)	
*	4-931-988-41	INDIVIDUAL CARTON		*	4-931-988-81	INDIVIDUAL CARTON	

AV CONTROL AMPLIFIER
SONY®

TA-E721

SERVICE MANUAL

US Model
Canadian Model
E Model



SPECIFICATIONS

Amplifier section

Harmonic distortion (Front)

Less than 0.02% (at 1 kHz, 1.0 V,
Surround off)

Frequency response (Surround off)

PHONO: RIAA equalization curve ± 1.0 dB
TUNER, CD, ADAPTOR, TAPE/DAT,
VIDEO 1, 2, 3/LD, 4: 20 Hz - 70 kHz ± 1.5 dB

Video section

Video input/output

Permissible signal input level

VIDEO 1, 2, 3/LD, 4: 1.5 Vp-p

Output signal level

VIDEO 1, 2, MONITOR: 1 +0.1 Vp-p
(with 1 Vp-p input, measured at MONITOR
OUT)

Impedance (output)

75-ohm unbalanced, negative sync.

Audio section

Input

Input jack	Jack type	Sensitivity	Impedance
PHONO (MM)	Phono	2.0 mV	50 kilohms
TUNER, CD, TAPE/DAT, VIDEO 1, 2, 3/LD, 4, ADAPTOR IN	Phono	150 mV	50 kilohms

Output

Output jack	Jack type	Sensitivity	Impedance
TAPE/DAT, VIDEO 1, 2, ADAPTOR OUT	Phono	150 mV	470 ohms
FRONT, REAR, CENTER	Phono	1.0 V	1 kilohms

Tone controls

BASS: ± 7 dB (100 Hz)
TREBLE: ± 8 dB (10 kHz)

Dolby input sensitivity

500 mV

General

Power requirements

120V AC, 60Hz (US, Canadian)
120V-220V-240V AC adjustable, 50/60Hz (E)

Power consumption

18W (US, Canadian)
17W (E)

AC outlets

4 switched, 480 W/4A max.

Dimensions

Approx. 430 x 105 x 295 mm (w/h/d)
(17 x 4 $\frac{1}{4}$ x 11 $\frac{5}{8}$ inches)
(including projecting parts and controls.)

Weight

Approx. 3.5 kg (7 lb 12 oz)

Accessories supplied

Power amp control cord (1)
Audio connecting cord (2)
Remote commander RM-P312 (1)
Sony Batteries SUM-3 (NS) (2)

Design and specifications are subject to change without notice.

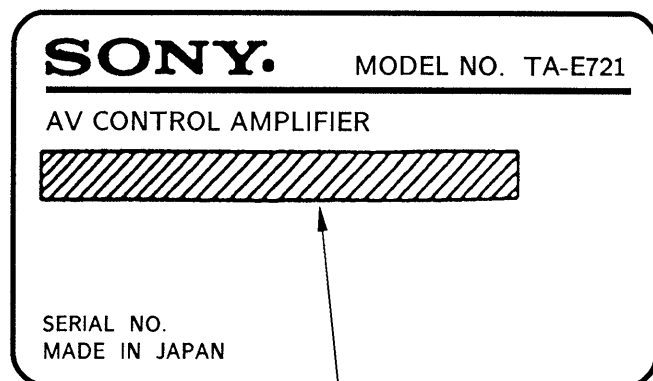
AV CONTROL AMPLIFIER
SONY®

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MODEL IDENTIFICATION

- Specification Label -



US, Canadian Model : AC : 120V 60Hz 18W

E Model : AC : 120/220/240V ~ 50/60Hz 17W

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer :

Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers.).

Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK Δ OR DOTTED LINE WITH MARK Δ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE Δ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

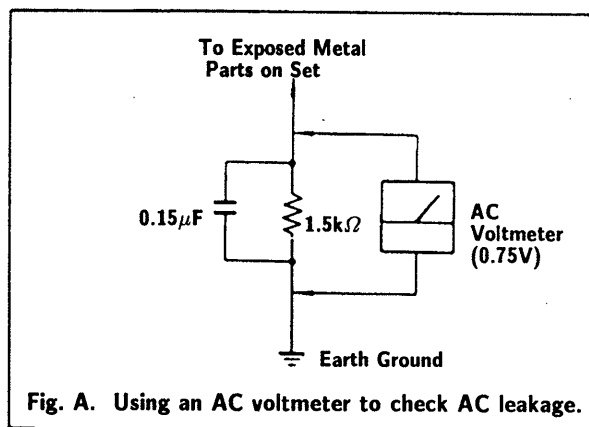


Fig. A. Using an AC voltmeter to check AC leakage.

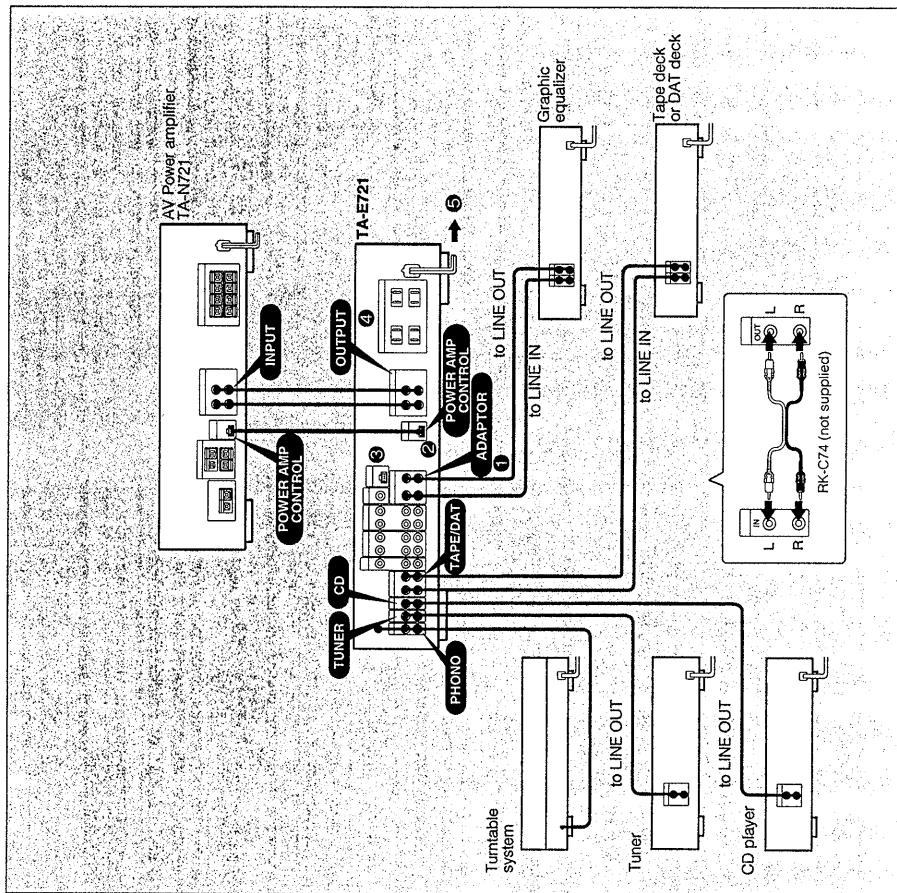
This section is extracted from instruction manual.

SECTION 1 GENERAL

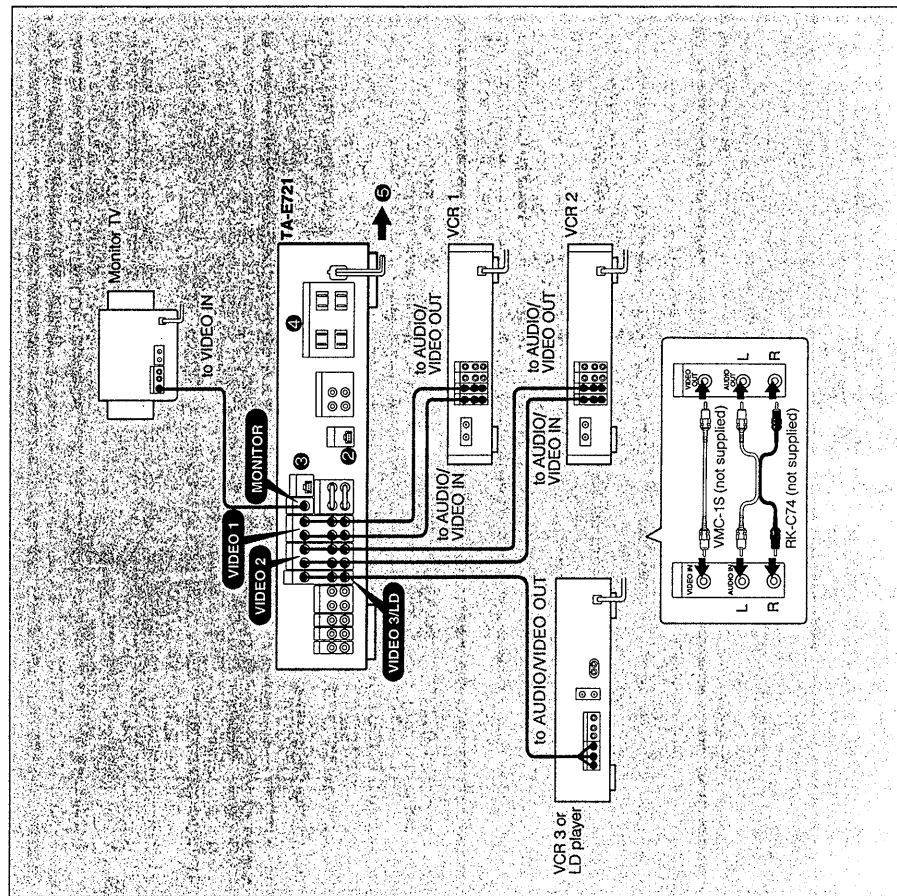
Connections

- Connect the AC power cord last. Make sure power is off.
- Cord plugs and jacks are color coded. Red plugs and jacks are for right channel (R) of the FRONT OUTPUT terminals and white ones for the left channel (L) of that terminals. And also, red plugs and jacks are for REAR terminal and white ones for CENTER terminal.
- The cable connectors should be fully inserted into the jacks. A loose connection may cause hum and noise.
- The numbers correspond to the following details on page 6.

Connecting Audio Equipment

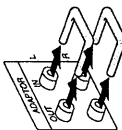


Connecting Video Equipment



Connections

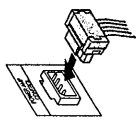
- 1 Connecting a graphic equalizer, etc.**
Before connecting the equipment such as a graphic equalizer, remove the shorting plugs.



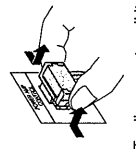
Note
When the equipment such as a graphic equalizer is not connected, be sure to install the shorting plugs. Otherwise, no sound is heard from the speakers.

2 Power amp control cord (supplied)

Connect the POWER AMP CONTROL OUT jack on the rear to the POWER AMP CONTROL IN jack of the AV power amplifier TA-N721. The output of the AV power amplifier is controlled by the unit.



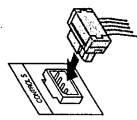
Push in until it clicks.



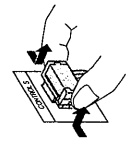
To disconnect, pull it out by grasping both sides of the plug.

3 Flat remote control cord (not supplied)

Connect to the CONTROL S IN jack of other Sony equipment with the flat remote control cord for whole audio system remote control.



Push in until it clicks.



To disconnect, pull it out by grasping both sides of the plug.

4 AC OUTLETS (SWITCHED)

Use these to power audio component whose total power consumption is less than the wattage indicated on the AC outlets.
These outlets are controlled by the SYSTEM POWER switch.

CAUTION

Do not connect any electrical home appliances such as an electric iron, fan, TV or other high wattage equipment to these AC outlets.

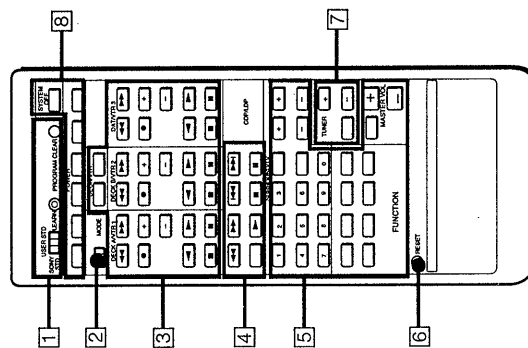
5 Power cord

Connect to a wall outlet.

Remote Commander

- When you manipulate buttons on the commander, be sure to point the head of the commander toward the remote control sensor on the front of the AV control amplifier.
- If there is an obstacle between the AV control amplifier and the head of the commander, the AV control amplifier may not be controlled remotely.

Programmable Remote Commander RM-P312



The RM-P312 can "learn" various functions of other remote commanders which use infrared rays. When the mode selector is set to SONY STD (Sony standard), buttons on the RM-P312 can be used to perform the functions below:

1 Program control section

Mode selector and indicator
SONY STD: To control Sony equipment.
USER STD: To control equipment whose remote control functions are stored.
LEARN: To store functions of other remote commanders emitting infrared rays.
PROGRAM CLEAR button: Clears the stored functions.

2 MODE selector

Selects the function mode on the remote commander.

- To select the functions indicated in light gray such as DECK, DAT, CD player and surround mode of amplifier.
- To select the functions indicated in blue such as VCR, LDP (Laser disc player) and TV.

3 Tape deck/DAT/VCR control section

ANT (antenna) TV/VTR buttons: Selects the output signal from the antenna terminal on the VCR, either a TV signal or VCR programs.

VTR CH (channel) +/- buttons: Select channel on the VCR.

◀▶: Fast winding or forwarding

●: Recording

▶▶: Play

■: Stop

■: Pause

REC MODE REV/FWD buttons:

For reverse recording, press REV and ● together.

For forward recording, press FWD and ● together.

4 CD/LD player control section

The combined CD/LD player can be controlled with LDP position.

D (disc) SKIP: Disc skip (for a CD player equipped with a multi-disc changer)

▶: Play

■: Pause

■: Stop

◀▶▶▶: Manual search (only for LD player)

◀▶▶▶: Locates a desired selection.

5 Amplifier/TV section

TV/VIDEO button: Selects the input signal of the TV.

(for TV)

Program number (1 to 0) and ENTER buttons: Select the channel. (for TV)

SURROUND mode selectors

(for the AV control amplifier)

ON/OFF: Turns on/off the surround mode.

MODE: Selects the surround mode.

T (test) TONE: Outputs test tone to each speakers in succession.

DELAY: Adjusts the delay time.

FUNCTION selectors: Select an input source of the AV control amplifier. (for the AV control amplifier)

CENTER VOL /TV VOL +/- buttons: Control the volume of center speaker or TV. (The CENTER VOL +/-

buttons function for the AV control amplifier.)

REAR VOL /TV CH +/- buttons: Control the volume of rear speakers or channel of TV. (The REAR VOL +/-

buttons function for the AV control amplifier.)

DBFB button: Turns on/off the DBFB (Dynamic Bass Feed Back) (for the AV control amplifier)

MASTER VOL +/- buttons: Control the amplifier's master volume. (for the AV control amplifier)

Remote Commander

6 Reset button

Reset the commander to the initial state.

7 Tuner control section

SHIFT button: Selects a memory page.

PRESET +/- buttons: Select a preset station.

8 Power control section

SYSTEM OFF button: Turns off the power of the whole system: LDP, VCR, TV, and AUDIO.

LDP/VTR1/VTR2/VTR3/TV/AUDIO POWER buttons:

Control the power of each unit.

Note on the (recording) button under 3 Tape deck/ DAT/VCR control section

If your recorder is of such type as pressing (●) puts it in recording pause mode, first press (●) on this commander and then II.

Note

The (play) buttons in 3 and 4 and the SHIFT button and PRESET +/- buttons in 7 can function without pressing one of the FUNCTION buttons in 5 in the following cases:

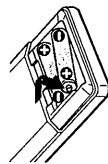
- When the CD player is connected to the CD jacks
- When the tape deck is connected to the TAPE jacks
- When the video deck is connected to the VIDEO 1 jacks (switch the MODE on the remote commander to VTR 1).

Inserting the Batteries

1 Open the cover.



2 Insert two size-AA (R6) batteries with correct polarity.



Battery life

About half a year of normal operation can be expected when using the Sony SUM-3 (NS) batteries.

When the batteries are exhausted, the commander can no longer operate the unit. Replace both batteries with new ones.

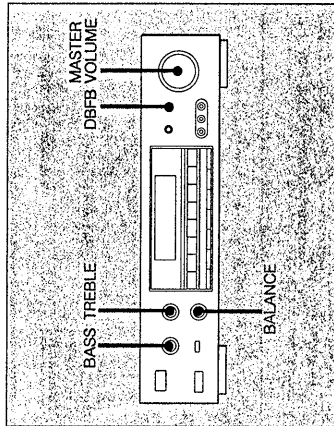
To avoid battery leakage

When the commander is not to be used for a long period of time, remove the batteries to avoid damage caused by battery leakage and corrosion.

To avoid malfunction of the remote commander

Avoid keeping the commander under extremely hot or humid location.

Adjusting the Sound



Adjusting Volume

To increase the volume, turn the MASTER VOLUME control clockwise.

To decrease it, turn the control counterclockwise.

Note

Turn down the volume before switching on the unit. This prevents damage to speakers.

Adjusting Left and Right Sound Balance

Adjust BALANCE control to correct stereo imaging when the speaker position is not symmetrical.

Adjusting the Tone from the Front Speakers

To enhance treble or bass sound from the front speakers, turn the TREBLE or BASS control clockwise.

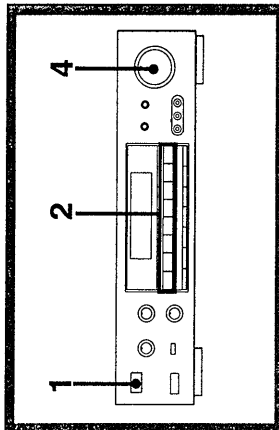
To attenuate them, turn the TREBLE or BASS control counterclockwise.

Reinforcing the Bass

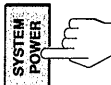
To obtain powerful bass sound, press DBFB (Dynamic Bass Feed Back) button. The indicator on the display lights up.

Listening to/Watching Program Sources

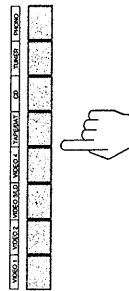
Basic Operation



1 Press the SYSTEM POWER switch to turn on the unit.



2 Select a program source.



3 Play the program source.

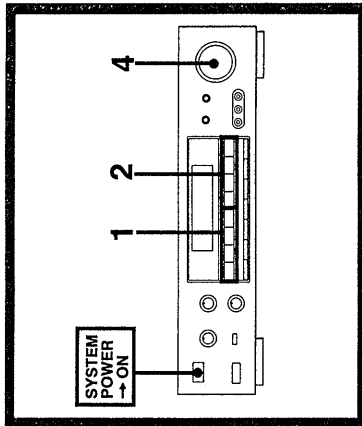
4 Adjust the volume.



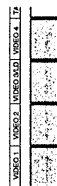
Listening to/Watching Program Sources

Combining the Video Image with the Sound from Another Program Source

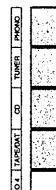
The unit allows you to combine a video image with sound from another audio program source as back ground music.



1 Select a video source.



2 Select an audio source.



3 Play both the video and audio program sources.

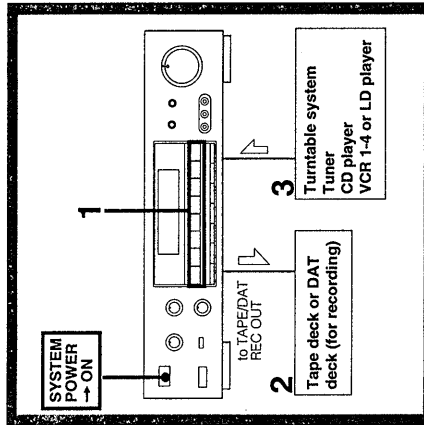
4 Adjust the volume.



To cancel the combining function
Select the desired video source again.

To watch a video source with the MONITOR number displayed on the monitor TV
Select the video source with FUNCTION selectors.

Recording Audio Program Source



1 Select a program source.



2 Set the tape deck or DAT deck to the recording mode.

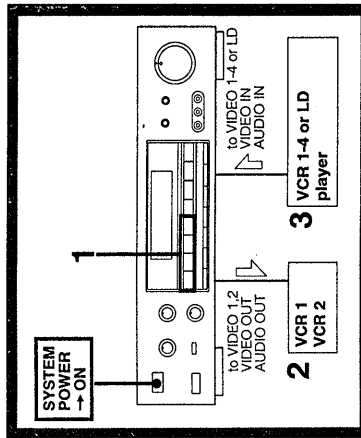
3 Play the selected program source.

Note

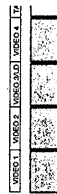
The settings of the MASTER VOLUME, TONE, DBFB, SURROUND, and BALANCE controls do not have any effect on recording.

Recording Video Program Source

You can operate two or more video or tape decks for recording at the same time as the audio (and video) signals of the program source are output simultaneously through all recording output jacks.



1 Select a video source for VCR 1-4 or LD player.



2 Set the VCR 1 or VCR 2 in the recording mode.

3 Play the selected program source.

To record onto two tapes at a time – simultaneous recording
Set both the VCR 1 and VCR 2 to the recording mode.

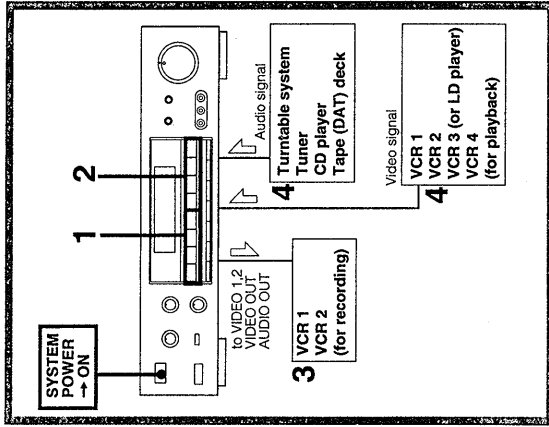
To record audio signal of video source onto a cassette tape
The audio signal of the program source selected by the FUNCTION selectors is always output from the TAPE/DAT jacks. Set the tape (or DAT) deck connected to the TAPE/DAT jacks to the recording mode.

Note

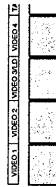
Recording can be performed with a VCR except the VCR or LD player for playback.

Editing Audio/Video Program Sources

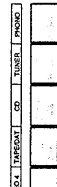
During video tape editing, you can add the desired sound on the recording-side video tape from audio or video program source.



1 Select a video source for VCR 1, VCR 2, VCR 3 (or LD player), or VCR 4 except the VCR for recording.



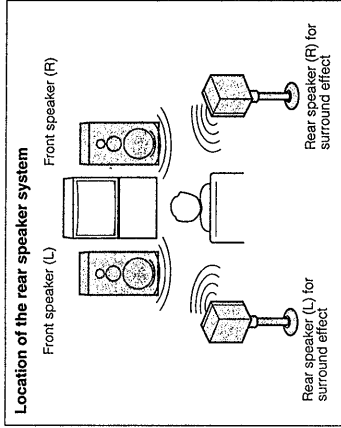
2 Select an audio source.



Getting Ready to Enjoy Surround Sound

Basic Surround System

Two front and two rear speakers are necessary to enjoy the surround function.



Selecting surround modes

DOLBY* (Dolby Surround)
Expands sound just like listening to it in a movie theater.

DOLBY PRO LOGIC
The Dolby Pro Logic Surround Decoder which has the same functions for playback, such as movie theaters and gives a theater-like experience in your listening room, naturally reproducing the audio sound field.

HALL (Hall Surround)
Provides reverberation effect that is produced in a concert hall.

SIMULATED (Simulated Surround)
Gives a simulated stereo effect to monaural sound.

To turn on or off the surround mode
Press the SURROUND button.

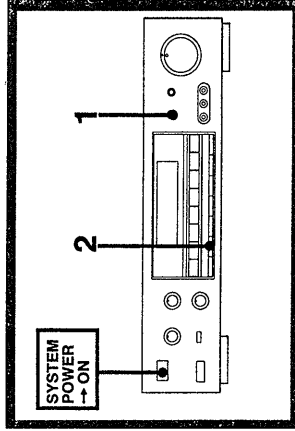
Note
No sound will be heard from the surround speakers, when the SURROUND button is set to off.

* Manufactured under license from Dolby Laboratories Licensing Corporation. Additionally licensed under one or more of the following patents: U.S. numbers 3,632,886, 3,746,792 and 3,959,590; Canadian numbers 1,004,603 and 1,037,877. "DOLBY" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

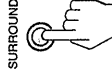
DOLBY SURROUND decoder reproduces the specially encoded surround sound of Dolby surround video programs.

Selecting the Speaker Operation Mode in the Dolby Pro Logic Function

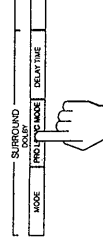
One center speaker is required in addition to the basic four speakers for the Dolby Pro Logic surround system. In the DOLBY surround mode, a speaker operation mode can be selected to match your speaker system. Press PRO LOGIC MODE button to select the appropriate mode.



1 Press the SURROUND button so that the SURROUND ON/OFF indicators in the display window shift over to ON.



2 Select the DOLBY PRO LOGIC mode according to your speaker system.

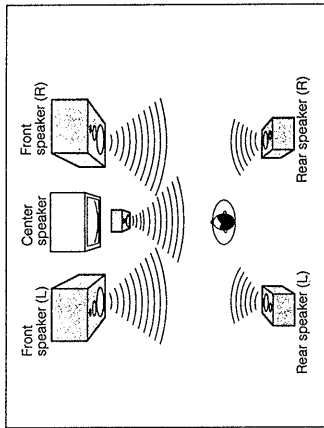


Each time the PRO LOGIC MODE button is pressed, the DOLBY PRO LOGIC mode is changed in the following order:
NORMAL → WIDE → 3 CH. → PHANTOM

Getting Ready to Enjoy Surround Sound

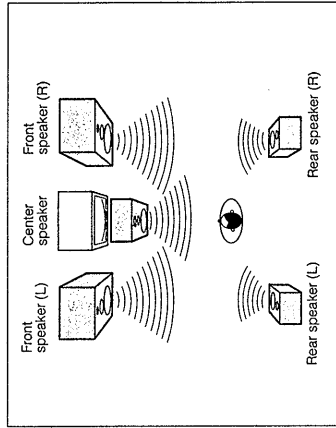
NORMAL mode

When connecting smaller speaker than front speakers, such as that of TV for a center speaker. The bass sound of the center channel is output from the front speakers, as small speaker cannot produce enough bass.



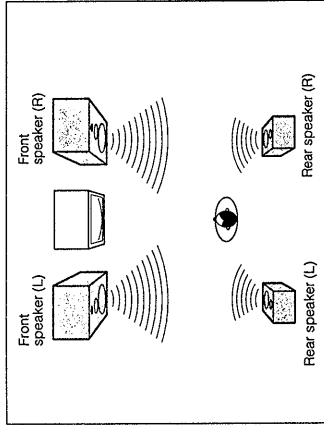
WIDE mode

When connecting the same size of speaker as front speakers for a center speaker.



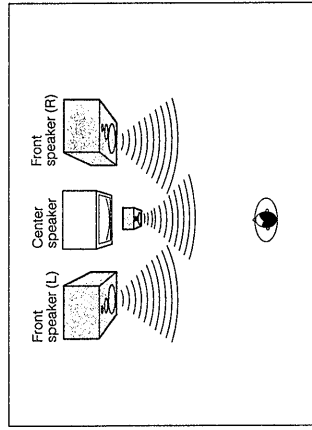
PHANTOM mode

When connecting only front and rear speakers. The sound of the center channel can be heard from the front speakers.



3 CH. mode

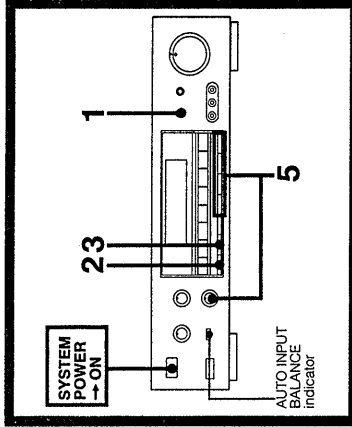
When connecting front speakers and a center speaker. The sound of the rear channels can be heard from the front speakers.



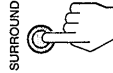
Note

The amount of the DBFB effect varies according to the Dolby Pro Logic mode.

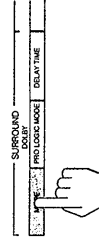
Adjusting the Surround Level for Dolby Surround System



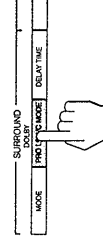
- 1 Press the SURROUND button so that the SURROUND ON/OFF indicators in the display window shift over to ON.



- 2 Select the DOLBY surround mode.

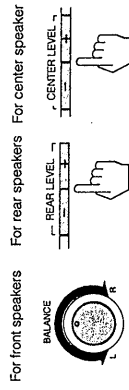


- 3 Select the DOLBY PRO LOGIC mode according to your speaker system.



- 4 Press the T.TONE button on the remote commander. (The T.TONE function is available only with the remote commander.)

- 5 Adjust the sound level of front, rear speakers and a center speaker.



- 6 Press the T.TONE button on the remote commander again to set to off.

Automatic Input Balance

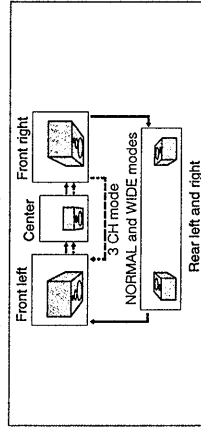
The input balance is automatically adjusted. When the adjustment is completed, the AUTO INPUT BALANCE indicator lights up.

Note

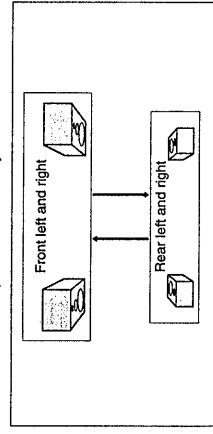
The display window has level indicators for rear speakers and center speaker. When distorted sound is seem to be output from the rear speakers or center speaker, adjust their levels independently so that the peaks of the signal levels may not reach the orange section.

Sequence of the test tone

In a system with a center speaker:
The test tone will be output automatically from the front left, center, front right, and the rear speakers in succession.



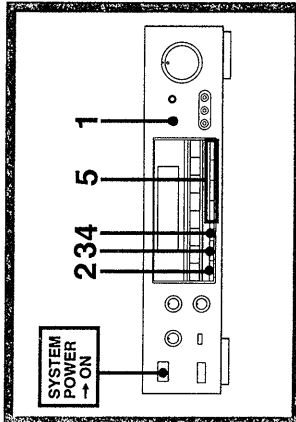
In a system without a center speaker:
The test tone will be output automatically from the front speakers and rear speakers alternately.



Enjoying Surround Sound

Listening to with Surround Effect

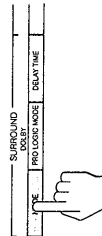
The unit has three surround modes, DOLBY, HALL, and SIMULATED which have been preset in the factory. You can enjoy the surround sound effects by just selecting the surround mode according to the program source.



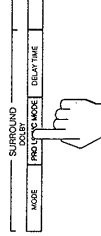
1 Press the SURROUND button so that the SURROUND ON/OFF indicators in the display window shift over to ON.



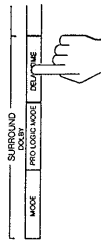
2 Select a surround mode: DOLBY, HALL, or SIMULATED.



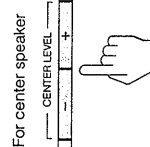
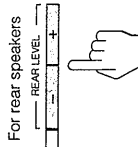
3 Select the DOLBY PRO LOGIC mode according to your speaker system.



4 Select the delay time: 15 ms, 20 ms, or 30 ms.



5 Adjust the level of the rear speakers and center speaker.

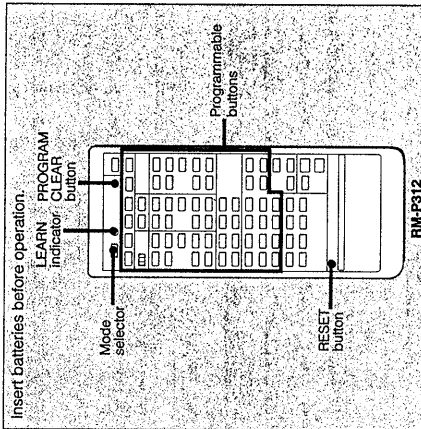


To turn off the surround effect
Press SURROUND button again.
The normal sound without surround effect will resume.

Advanced Operating with the Remote Commander

Programming Signals of Other Audio/Video Equipment with RM-P312

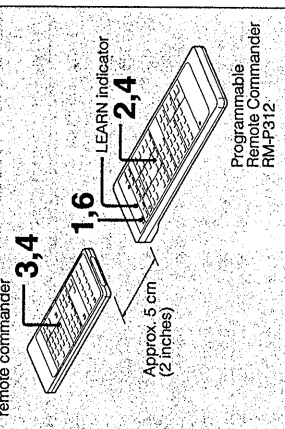
The RM-P312 can learn various functions of other remote commanders emitting infrared rays and allows you to control most of audio and video equipment from a distance.



The two remote commanders must:

- be placed straight and head to head.
- be placed at a distance of approx. 5 cm (2 inches).
- not be moved during the programming operation.

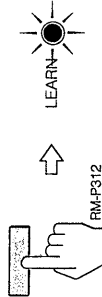
Other manufacturer's remote commander



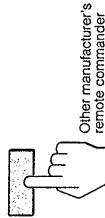
1 Set the mode selector to LEARN.



2 Press and hold the button which shall "learn" the remote-control signal until the LEARN indicator lights up.



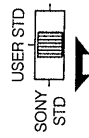
3 Press and hold the button of other manufacturer's remote commander whose signal is to be learned.



4 Remove your finger(s) from the button(s) after the LEARN indicator goes off.

5 Repeat operation for each button to be programmed.

6 Set the mode selector to USER STD or SONY STD.



After programming
Be sure to test if the equipment really works with the programmed signals.

Number of signals that the commander can learn
It depends on the format of the signal. If you program signals of Sony equipment, approximately 50 - 60 signals can be programmed.

Advanced Operating with the Remote Commander

If the LEARN indicator flashes or does not go out in steps 2 - 4.

The memory capacity has become full. This occurs when other signals stronger than the remote-control signals have been stored because the signals were programmed in a noisy environment or the remote commanders were placed too far apart from each other.

→ Clear all the signals following the procedure on the right and program again from the beginning under the proper conditions.

Notes on programming

- Remote-control signals of equipment of manufacturers other than Sony can be programmed only when they are compatible with the infrared wireless remote control system. Since the programmable commander can "learn" only the signals output from another remote commander, it cannot control equipment that does not use a remote commander. Also, note that there are some special remote-control signals that cannot be programmed.
- Do not attempt to use the programmable commander with an air conditioner or other household appliances.

To Program a New Signal onto a Previously Programmed Button

Follow the programming procedure.
The previously programmed signal is cleared and replaced by the new signal.

To clear all programmed signals

- Set the mode selector to LEARN.
- Press and hold any button of the programmable area until the LEARN indicator lights up.
- Press PROGRAM CLEAR until the LEARN indicator flashes and goes off.

Note

It is not possible to clear the programmed content of just one button.

To program a signal onto the ● REC button in the TAPE or VTR section

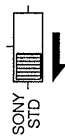
It is not possible to operate any equipment with only the ● REC button. To program a signal under the ● REC button, press and hold the following buttons at the same time in step 2.

TAPE	<div> <div>DECK/VTR REC MODE</div> <div> <div>◀</div> <div>▶</div> </div> </div>	or	<div> <div>DECK/VTR REC MODE</div> <div> <div>▶</div> <div>▶</div> </div> </div>
VTR	<div> <div>DECK/VTR REC MODE</div> <div> <div>▶</div> <div>▶</div> </div> </div>		<div> <div>DECK/VTR REC MODE</div> <div> <div>▶</div> <div>▶</div> </div> </div>

Controlling Equipment

By switching the mode selector as shown below, a single button alternately controls Sony equipment and another manufacturer equipment.

To control Sony equipment



To control equipment with programmed signals



When Sony equipment cannot be remote-controlled

Program the signal in the same way as for equipment from other manufacturers. In this case, even with Sony equipment, set the mode selector to USER STD.

Note on battery

If the LEARN indicator does not light when a button is pressed, the batteries are almost exhausted. When the batteries are exhausted, the remote commander can no longer operate the unit or programming becomes impossible. If this happens, replace both batteries with new ones. We recommend the use of alkaline batteries for prolonged use.

If no signal has been programmed

The programmable commander can control Sony equipment even when the mode selector is set to USER STD.

If the equipment works incorrectly

Press RESET.
The programmed contents of the buttons are not cleared by pressing RESET.

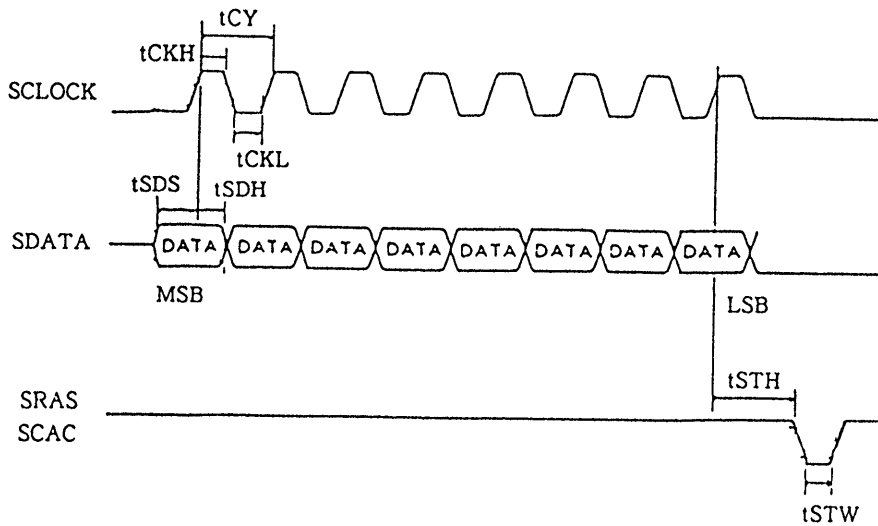
SECTION 2

IC PIN FUNCTION

2-1. DESCRIPTION ON IC303 (LV1001M)

Pin No.	Explanations
1	De-couple capacitor for threshold voltage
2, 64	Capacitor for smoothing of rectifier output
3	Capacitor for sliding band filter and Delayed output
4, 62	Capacitor for sliding band filter
5, 61	Capacitor for pre-emphasis
6, 60	Input filter for rectifier
7, 57	Input filter for rectifier
8	Reference voltage
9	Reference voltage
10	Mute control
11	Vcc
12	Output for V _{DD}
13	Clock input for serial input, data input for parallel input mode
14	Data input for serial input, data input for parallel input mode
15	Column address selection for serial input, data input for parallel input mode
16	Row address selection for serial input, data input for parallel input mode
18 to 32	Connection to memory device
24	Vss
33	X'tal resonator for oscillator
34	X'tal resonator for oscillator
35	Long or Short mode selection
36	Serial or Parallal mode selection
37	For test mode
38	Smoothing for NR rectifier
39	Smoothing for NR rectifier
40	Capacitor for weighting on side chain path
41	Input for variable resistor
42	NR output
43	7kHz low pass filter output
44	Input for NR
45	Capacitor for de-couple on NR
46	Delay output or NR output
47	Input for mute circuit
48	Output for mute circuit
49	Output for 7kHz low pass filter
50	Input for 7kHz low pass filter
51	GND
52	Input for right channel
53	Input for left channel
54	Capacitor for de-couple on Fixed matrix output
55	Noise shaping and delay input
56	Noise shaping output
57	Delay input signal mode select switch $(L + R/L - R)$
58	Filter for supply voltage on comparator
63	Capacitor for sliding band filter and local decoder output

Input Address Port Timing SHORT MODE



In case of short mode, delay time setting is set in above timing. The data loaded to SDATA is written on the leading edge timing. In order to select that the data latch for row address strobe or column address strobe is loaded, SRAS or SCAS port is controlled.

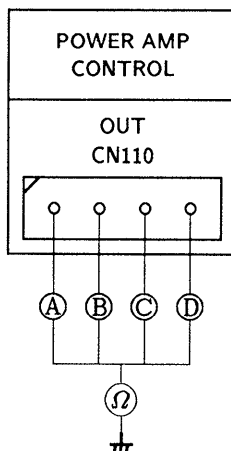
When changing delay time setting, meaningless data on a memory are read. this causes the pop noise. when SRAS or SCAS is controlled, mute circuit (pin 55 is input, pin 56 is output) is activated. Mute time is the same as the delay time which is set at that time. (Serial data input mode only, On parallel data input mode, mute circuit is activated by using the mute control port pin 18.)

On long mode, input data number is 9, the way of setting delay time is same.

2-1-1. SERVICE NOTE

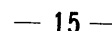
CN110 (POWER AMP CONTROL OUT)

(POWER AMP Unconnected Operation Check)

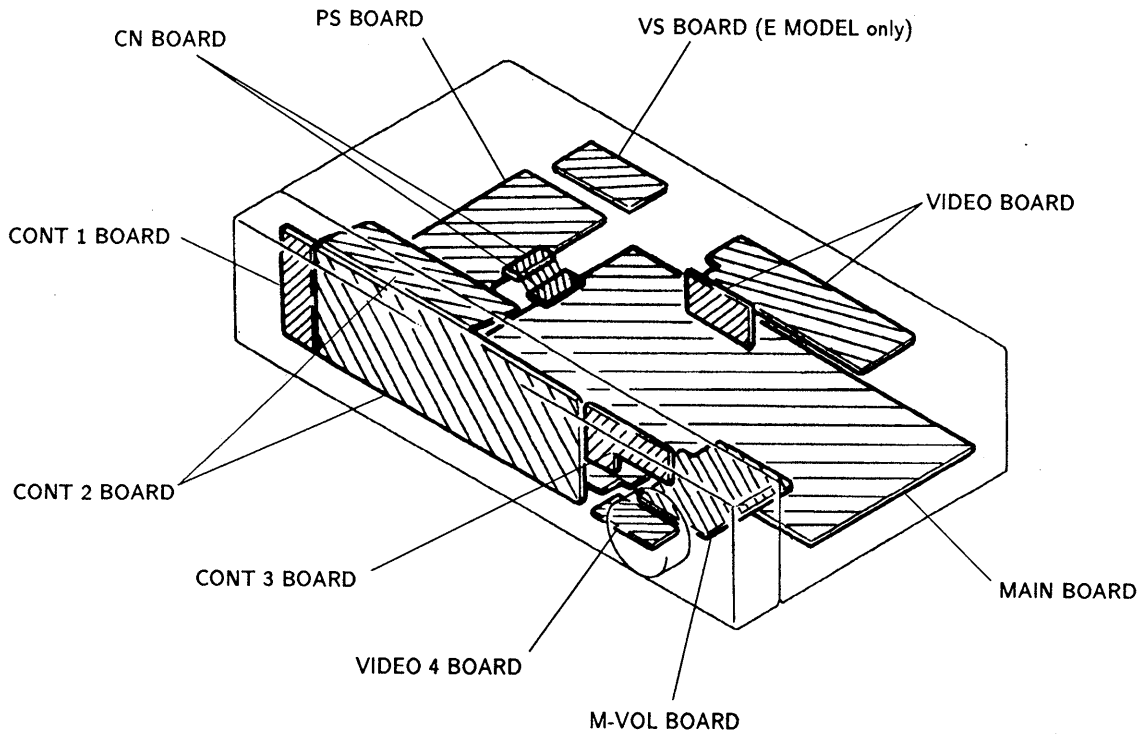


CN101	POWER OFF	POWER ON (SURROUND OFF)	DOLBY PRO LOGIC				HALL	SIMULATED
			PHANTOM	NORMAL	WIDE	3CH		
Ⓐ	0Ω	0Ω	0Ω	0Ω	0Ω	0Ω	0Ω	0Ω
Ⓑ	113Ω	114Ω	114Ω	∞Ω	∞Ω	∞Ω	114Ω	114Ω
Ⓒ	113Ω	114Ω	∞Ω	∞Ω	∞Ω	114Ω	∞Ω	∞Ω
Ⓓ	113Ω	∞Ω	∞Ω	∞Ω	∞Ω	∞Ω	∞Ω	∞Ω

3-1. BLOCK DIAGRAMS

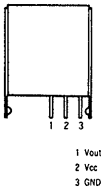


3-2. CIRCUIT BOARDS LOCATION

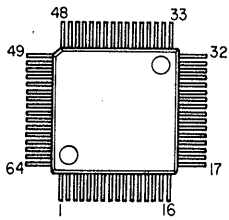


3-3. SEMICONDUCTOR LEAD LAYOUTS

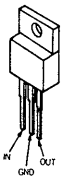
GP1U52XB



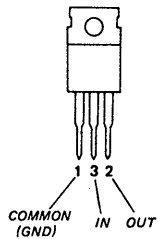
LV1001M



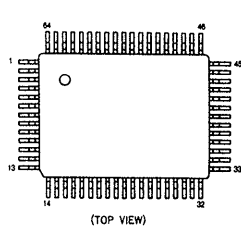
M5F78M12



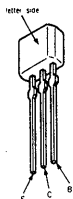
M5F79M12



μPD7520GF-722-3BE



DTA124ES
2SA1175-HFE
2SC3623A-LK



DTC124ES
2SC2603-EF
2SC3622A-LK



2SA733-QP
2SD1387



2SB1094-LK
2SD2012



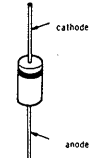
2SD773



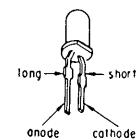
2SK246-Y



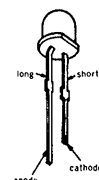
HZ4ALL
IN4148M



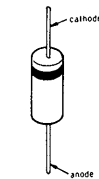
SEL2210S-CD



SEL2810A

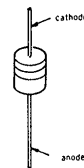


UZP-4.7B



UZP-22BC-TP

UZS6C3L
11ES2



3-4. PRINTED WIRING BOARD — MAIN SECTION —


- Refer to page 21 for IC BLOCK DIAGRAM
- Refer to page 16 for Semiconductor Lead Layouts

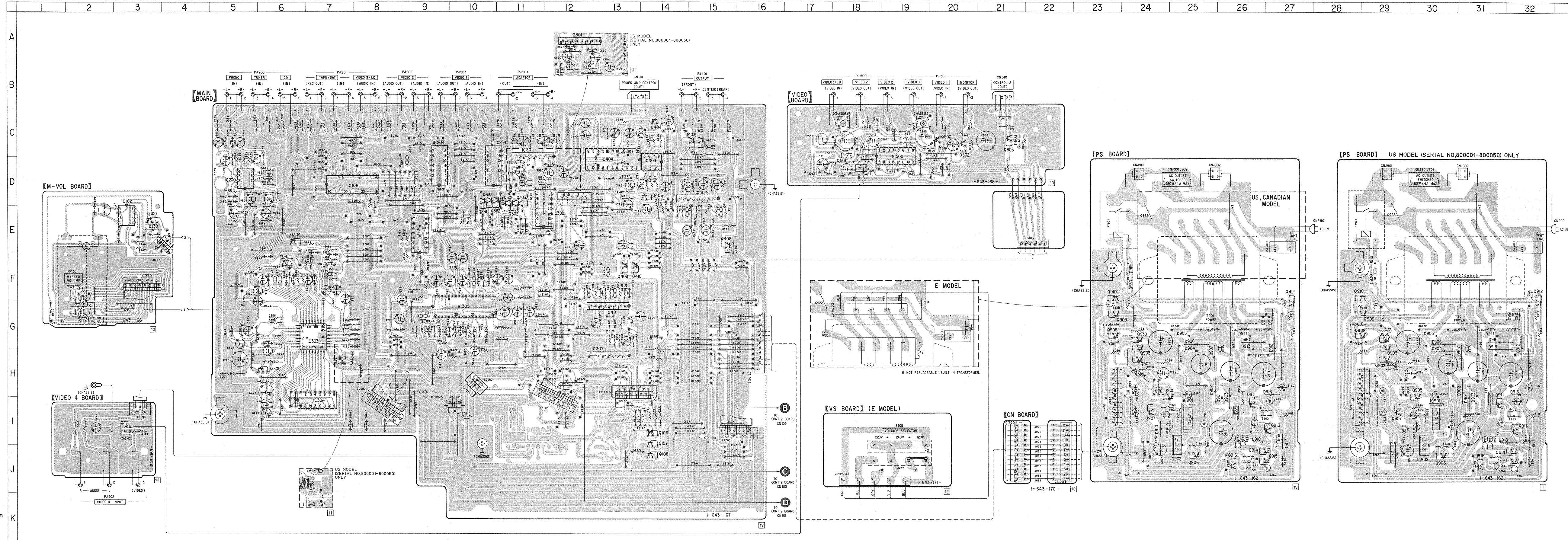
- **SEMICONDUCTOR LOCATION
(MAIN/POWER BOARD)**

	Board suffix number			Board suffix number	
	-11	-12		-11	-12
Ref. No.	LOCATION	LOCATION	Ref. No.	LOCATION	LOCATION
D130	E-3		Q100	E-100	
D399	G-15		Q106	I-14	
D803	C-21		Q107	I-14	
D901	I-31	I-26	Q108	J-14	
D902	H-31	H-25	Q301	D-11	
D903	I-31	I-26	Q302	E-11	
D904	H-30	H-25	Q303	D-11	
D905	G-30	G-25	Q304	E-6	
D906	G-30	G-25	Q305	H-6	
D907	H-31	H-25	Q331	D-10	
D910	I-29	I-24	Q332	D-10	
D911	G-31	G-26	Q333	D-10	
D912	H-32	H-27	Q403	C-15	
D913	H-31	H-26	Q404	C-14	
D914	G-32	G-27	Q406	D-14	
D915	G-32	G-27	Q408	E-15	
D916	H-32	H-27	Q409	F-13	
D917	I-32	I-27	Q410	F-13	
D918	I-32	I-27	Q500	C-20	
D919	F-29	F-24	Q501	D-18	
D930	F-29	F-24	Q502	C-20	
D961	G-31	G-26	Q803	C-21	
			Q902	H-29	H-24
IC102	E-3		Q903	H-29	H-24
IC106	D-8		Q905	H-30	H-25
IC200	D-5		Q906	J-30	J-25
IC204	D-9		Q907	I-29	I-24
IC254	D-10		Q908	G-29	G-23
IC301	A-12	C-11	Q909	G-29	G-23
IC302	E-12		Q910	F-28	F-23
IC303	G-7		Q911	I-31	I-26
IC304	I-7		Q912	E-32	F-27
IC305	G-10		Q913	I-32	I-27
IC307	H-13		Q914	J-32	J-26
IC309	E-9		Q915	J-32	J-27
IC401	G-13		Q916	J-31	J-26
IC402	D-15		Q930	G-29	G-24
IC403	D-14				
IC404	D-13				
IC500	D-19				
IC901	I-30	I-25			
IC902	J-30	J-25			

— MAIN SECTION —

Note:

- : parts extracted from the component side.
- : parts mounted on the conductor side.
-  : Jumper wire connected to the ground pattern on the component side.
- ⦿ : Pattern on the side which is seen.



— MAIN SECTION —

Note:

- All capacitors are in μF unless otherwise noted. pF: μF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- \triangle : internal component.
- $\text{---}/\text{---}$: fusible resistor.

Note:

The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.

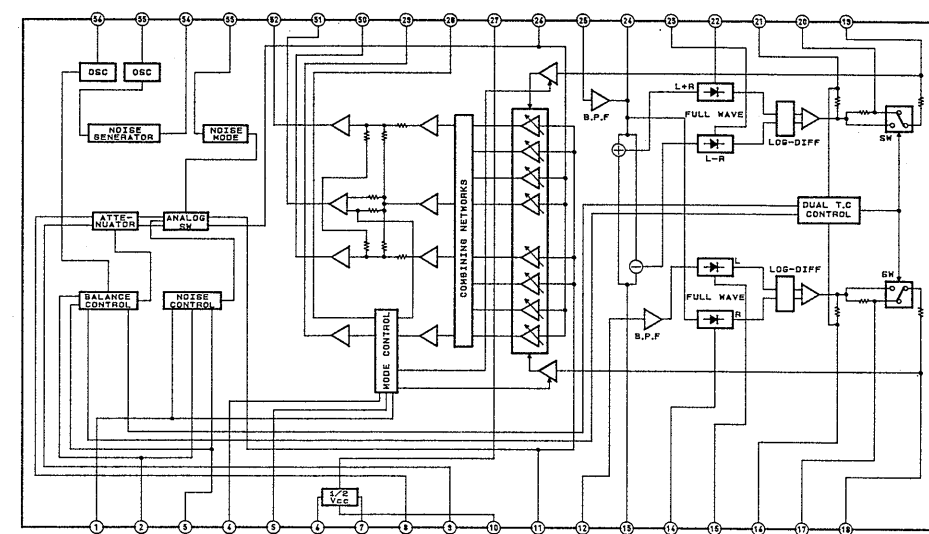
Note:

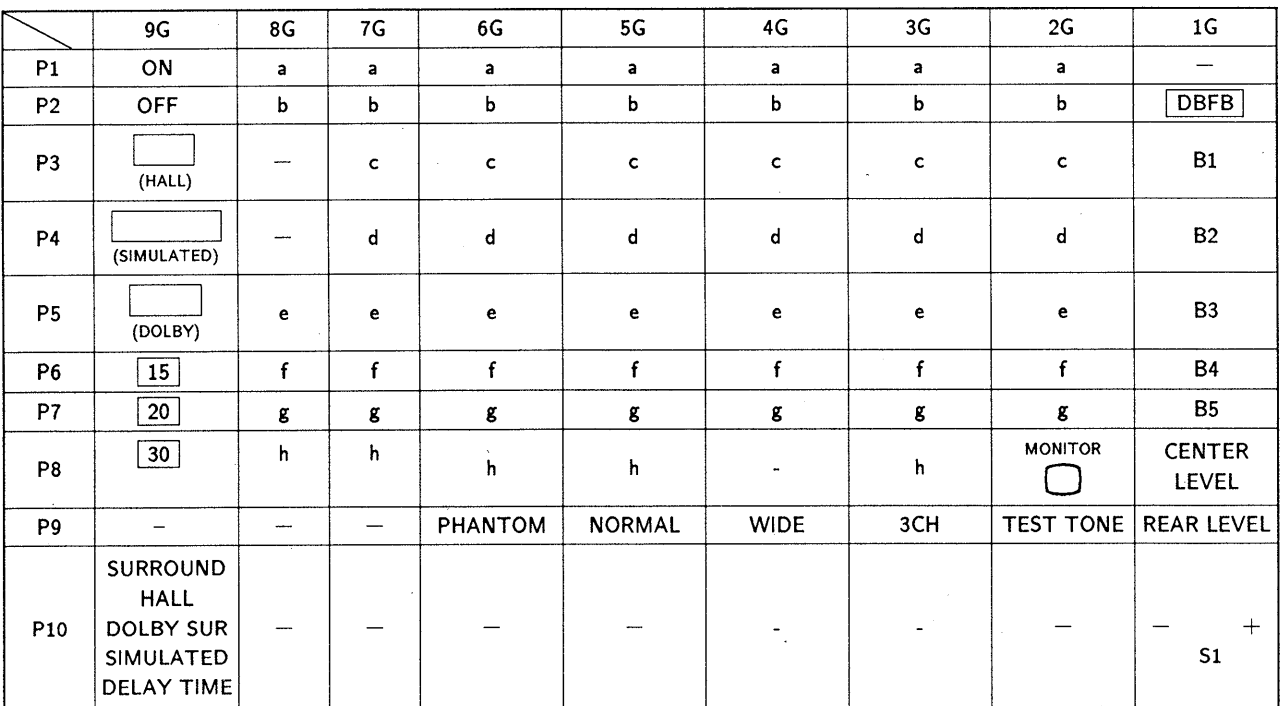
Les composants identifiés par une marque \triangle sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- --- : B+ line
- --- : B- line
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions. no mark: SURROUND off Position.
 - \blacktriangleright : FWD \blacktriangleleft : REV \blacksquare : STOP
 - \blacktriangleright : FF \blacktriangleleft : REW \odot : REC
- Voltages are taken with a VOM impedance 10M Ω . Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Signal path.
 - \Rightarrow : TUNER
 - \Rightarrow : REAR
 - \Rightarrow : CENTER
 - \Rightarrow : SURROUND (DELAY)

3-5. IC BLOCK DIAGRAMS

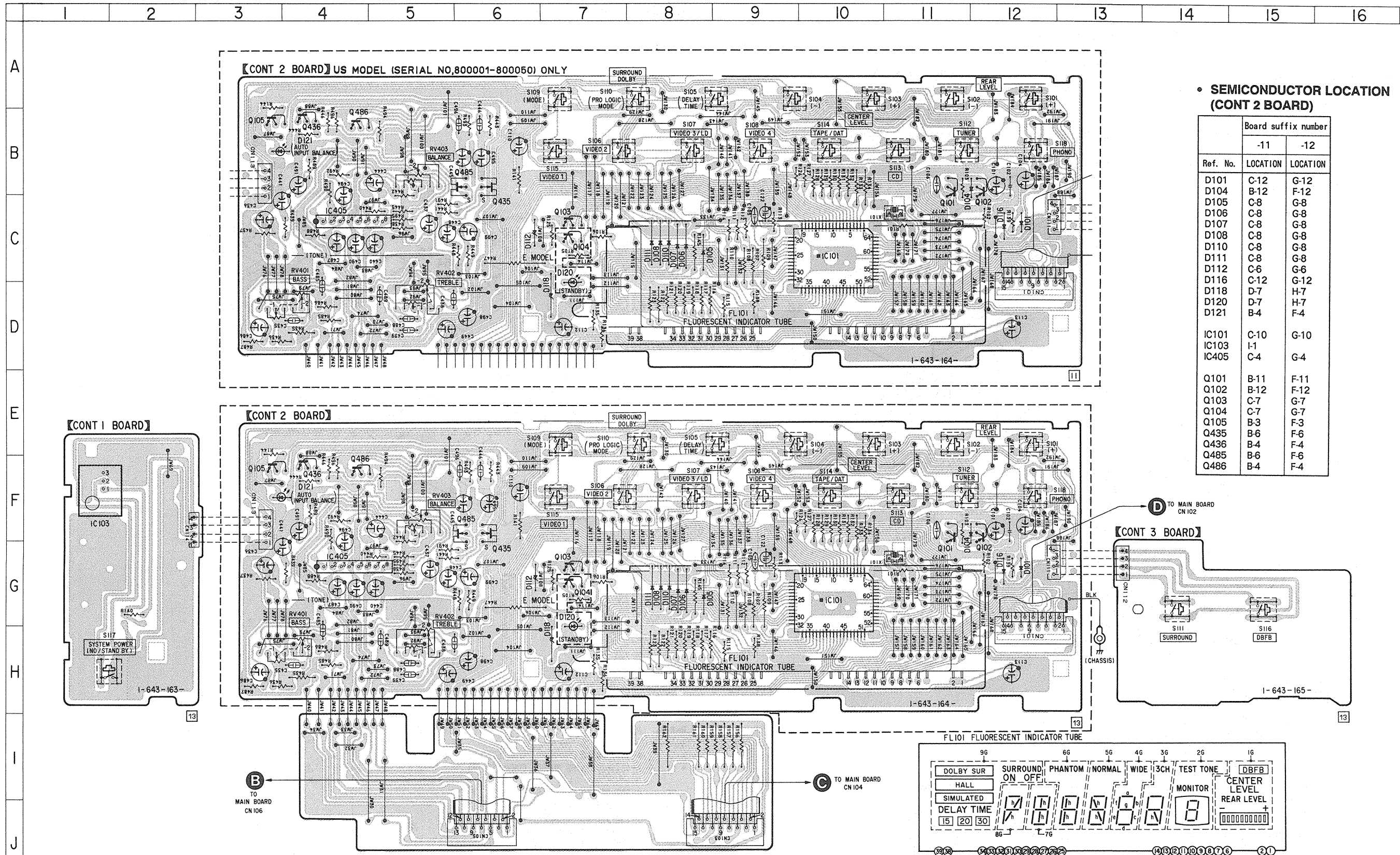
IC305 LA7280





3-8. PRINTED WIRING BOARD — CONTROL SECTION —

- Refer to page 21 for IC BLOCK DIAGRAM
- Refer to page 16 for Semiconductor Lead Layouts



• SEMICONDUCTOR LOCATION (CONT 2 BOARD)

Ref. No.	Board suffix number	
	-11	-12
D101	C-12	G-12
D104	B-12	F-12
D105	C-8	G-8
D106	C-8	G-8
D107	C-8	G-8
D108	C-8	G-8
D110	C-8	G-8
D111	C-8	G-8
D112	C-6	G-6
D116	C-12	G-12
D118	D-7	H-7
D120	D-7	H-7
D121	B-4	F-4
IC101	C-10	G-10
IC103	I-1	
IC405	C-4	G-4
Q101	B-11	F-11
Q102	B-12	F-12
Q103	C-7	G-7
Q104	C-7	G-7
Q105	B-3	F-3
Q435	B-6	F-6
Q436	B-4	F-4
Q485	B-6	F-6
Q486	B-4	F-4

SECTION 4

EXPLODED VIEWS

NOTE:

- -XX, -X mean standardized parts, so they may have some difference from the original one.

- Color Indication of Appearance Parts
Example:

KNOB, BALANCE (WHITE) . . . (RED)

 Parts color Cabinet's color

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- The mechanical parts with no reference number in the exploded views are not supplied.

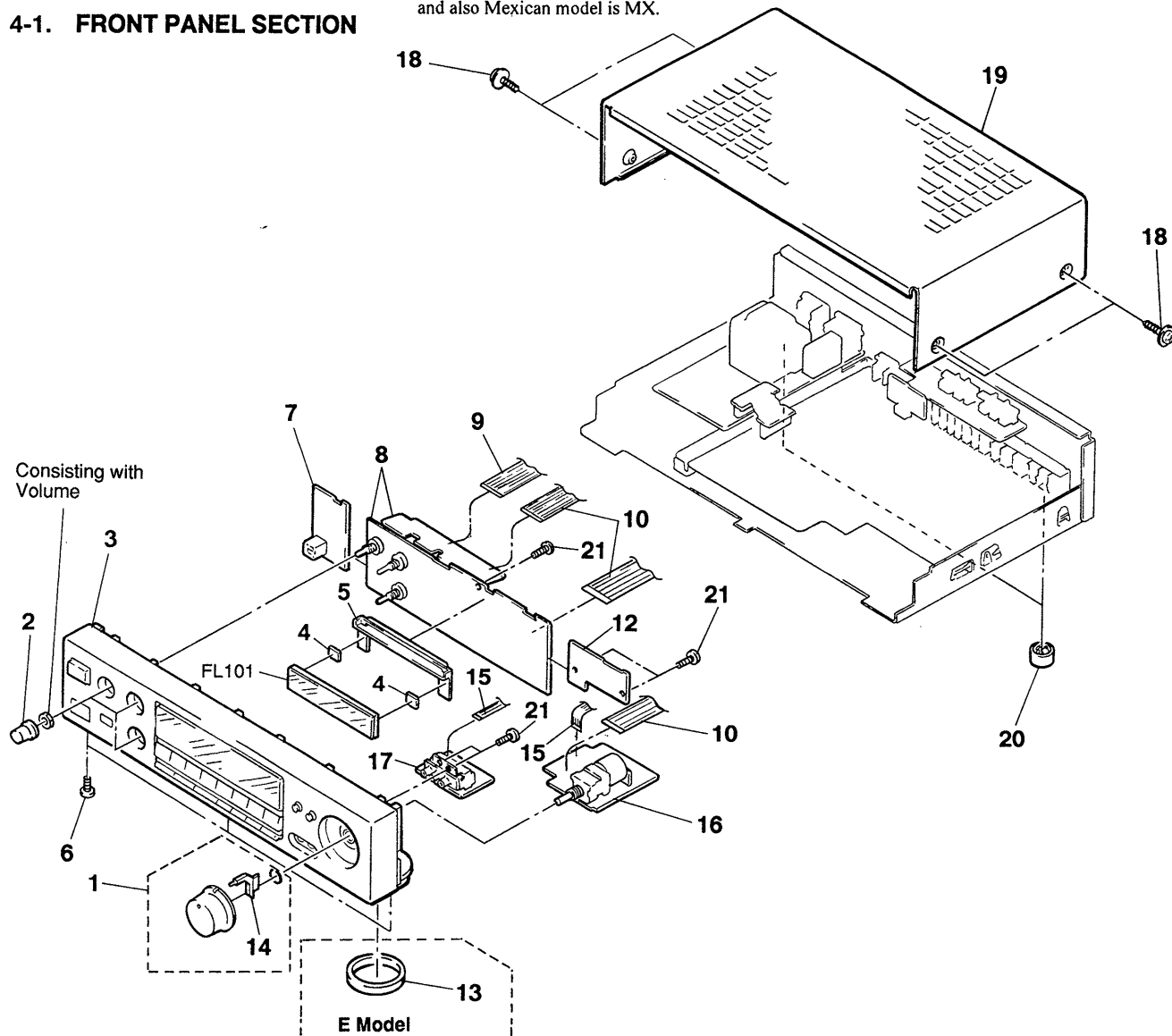
- Hardware (# mark) list is given in the last of this parts list.

- Canadian model is abbreviated as CND, and also Mexican model is MX.

The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

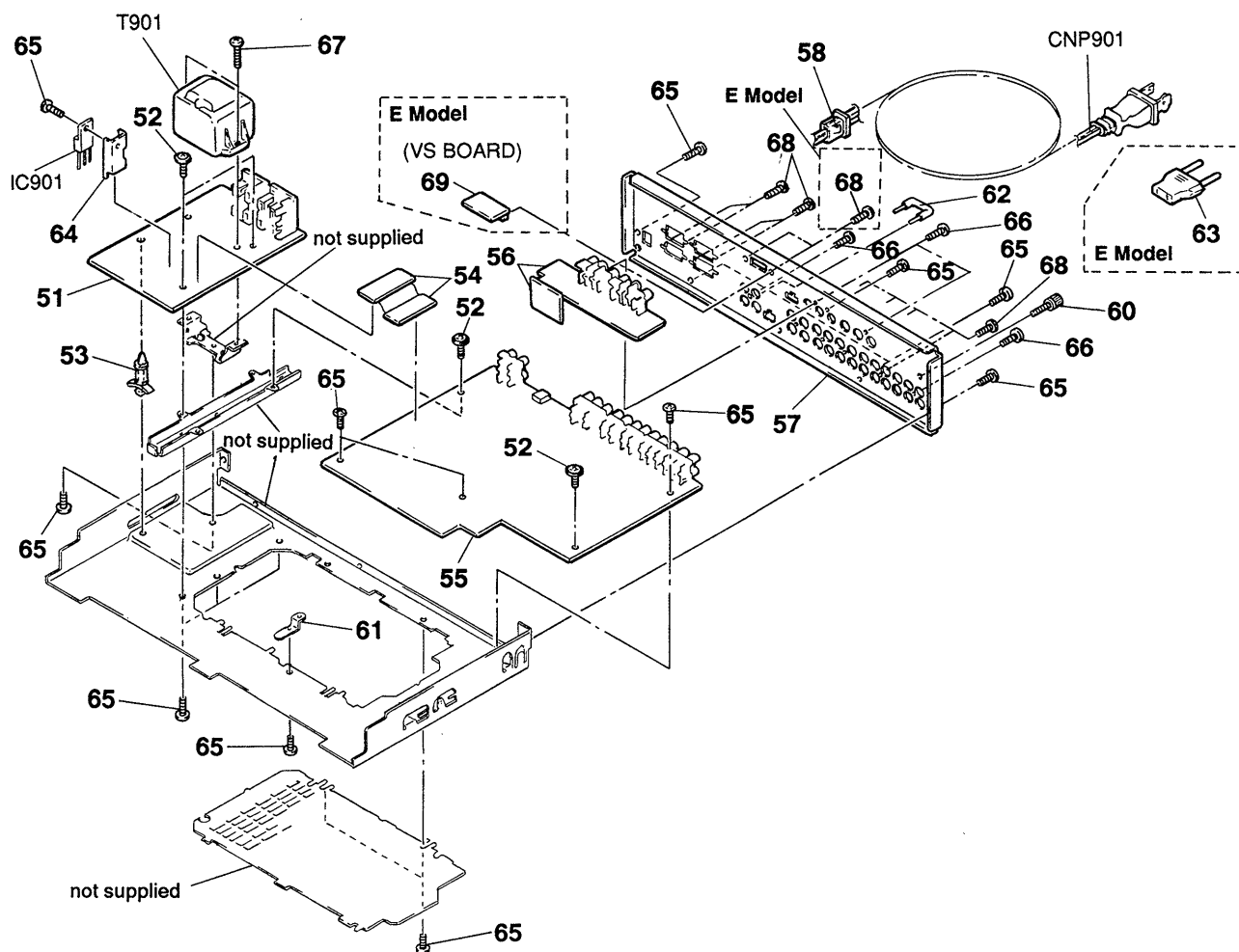
4-1. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
1	X-4942-296-1	KNOB ASSY	
2	4-943-420-11	KNOB (DIA. 19)	
3	X-4942-294-1	PANEL ASSY, FRONT (US, Canadian)	
3	X-4942-295-1	PANEL ASSY, FRONT (E)	
* 4	4-921-941-21	CUSHION (FL)	
* 5	4-934-443-01	HOLDER (FL TUBE)	
6	7-682-548-09	SCREW +BVTT 3X8 (S)	
* 7	1-643-163-11	PC BOARD, CONT 1	
* 8	A-4347-305-A	CONT 2 BOARD, COMPLETE (US, Canadian)	
* 8	A-4347-310-A	CONT 2 BOARD, COMPLETE (E)	
9	1-590-036-11	WIRE, FLAT TYPE (13 CORE)	
10	1-690-095-11	WIRE, FLAT TYPE (15 CORE)	

Ref. No.	Part No.	Description	Remark
* 12	1-643-165-11	PC BOARD, CONT 3	
* 13	4-929-030-11	RING (DIA. 58A), ORNAMENTAL (E)	
14	4-943-092-01	PLATE (VOL), LIGHT GUIDE	
15	1-575-730-11	WIRE, FLAT TYPE (5 CORE)	
* 16	1-643-166-11	PC BOARD, M-VOL	
* 17	1-643-169-11	PC BOARD, VIDEO 4	
18	3-704-366-01	SCREW (CASE) (M3X8)	
* 19	4-937-817-11	CASE	
20	4-933-601-01	FOOT	
21	4-928-635-01	SCREW, +BV (2.6X8) TAPPING	
FL101	1-519-727-11	INDICATOR TUBE, FLUORESCENT	

4-2. BACK PANEL SECTION



Ref. No.	Part No.	Description	Remark
* 51	A-4347-303-A	PS BOARD, COMPLETE (US, Canadian)	
* 51	A-4347-309-A	PS BOARD, COMPLETE (E)	
52	4-886-821-11	SCREW, S TIGHT, +PTTW 3X6	
* 53	3-346-265-11	HOLDER, PC BOARD	
* 54	1-643-170-11	PC BOARD, CN	
* 55	A-4347-299-A	MAIN BOARD, COMPLETE	
* 56	A-4347-300-A	VIDEO BOARD, COMPLETE	
* 57	4-945-755-41	PANEL, BACK (US, Canadian)	
* 57	4-945-755-51	PANEL, BACK (E)	
* 58	3-703-244-00	BUSHING (2104), CORD (US, Canadian)	
* 58	3-703-571-11	BUSHING (S) (4516), CORD (E)	
60	4-947-010-01	SCREW, FEEDER FIXED	
* 61	3-332-563-01	BRACKET (P)	

Ref. No.	Part No.	Description	Remark
62	1-535-530-11	PLUG, JUMPER	
△63	1-569-007-11	ADAPTER, CONVERSION 2P (E)	
* 64	3-309-144-21	HEAT SINK	
65	7-682-548-09	SCREW +BVTT 3X8 (S)	
66	7-621-849-00	SCREW (BV/RING)	
67	7-682-550-04	SCREW +BVTT 3X12 (S)	
68	7-685-646-79	SCREW +BTP 3X8 TYPE2 N-S	
* 69	1-643-171-11	PC BOARD, VS (E)	
△CNP901	1-574-902-11	CORD, POWER (E)	
△CNP901	1-590-771-11	CORD, POWER (US, Canadian)	
IC901	8-759-604-39	IC M5F78M12	
△T901	1-450-845-11	TRANSFORMER, POWER (US, Canadian)	
△T901	1-450-846-11	TRANSFORMER, POWER (E)	

SECTION 5

ELECTRICAL PARTS LIST

CN

CONT 1

CONT 2

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms.
METAL: Metal-film resistor.
METAL OXIDE: Metal oxide-film resistor.
F: nonflammable

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

● SEMICONDUCTORS

In each case, u: μ , for example:uA.: μ A. uPA.: μ PA.uPB.: μ PB. uPC.: μ PC. uPD.: μ PD.

● CAPACITORS

uF: μ F

● COILS

uH: μ H

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board.

Ref.No.	Part No.	Description	Remark
*	1-643-170-11	CN BOARD ***** < CONNECTOR >	
* CN903	1-560-285-11	CONNECTOR, (PIN) 12P	
* CN904	1-560-285-11	CONNECTOR, (PIN) 12P	

*	1-643-163-11	CONT 1 BOARD ***** < CONNECTOR >	
* CN114	1-565-295-11	PLUG, CONNECTOR 4P < IC >	
IC103	8-749-920-83	IC GP1U52XB < RESISTOR >	
R140	1-249-429-11	CARBON 10K 5% 1/4W < SWITCH >	
S117	1-554-303-21	SWITCH, TACTILE (SYSTEM POWER)	

*	A-4347-305-A	CONT 2 BOARD, COMPLETE (US, Canadian)	
*	A-4347-310-A	CONT 2 BOARD, COMPLETE (E) *****	

*	4-921-941-21	CUSHION (FL)	
*	4-934-443-01	HOLDER (FL TUBE) < CAPACITOR >	
C101	1-124-465-00	ELECT 0.47uF 20% 50V	
C102	1-161-494-00	CERAMIC 0.022uF 25V	
C104	1-126-177-11	ELECT 100uF 20% 10V	
C105	1-164-097-11	CERAMIC 0.022uF 50V	
C106	1-130-487-00	MYLAR 0.022uF 5% 50V	

Ref.No.	Part No.	Description	Remark
C110	1-124-589-11	ELECT 47uF 20% 16V	
C112	1-124-910-11	ELECT 47uF 20% 50V	
C113	1-124-910-11	ELECT 47uF 20% 50V	
C122	1-126-301-11	ELECT 1uF 20% 50V	
C435	1-136-159-00	FILM 0.033uF 5% 50V	
C436	1-124-250-00	ELECT 0.15uF 20% 50V	
C437	1-126-163-11	ELECT 4.7uF 20% 50V	
C438	1-106-363-00	MYLAR 6800PF 5% 200V	
C439	1-136-159-00	FILM 0.033uF 5% 50V	
C440	1-126-163-11	ELECT 4.7uF 20% 50V	
C441	1-126-177-11	ELECT 100uF 20% 10V	
C444	1-126-163-11	ELECT 4.7uF 20% 50V	
C445	1-126-301-11	ELECT 1uF 20% 50V	
C446	1-130-491-00	MYLAR 0.047uF 5% 50V	
C448	1-124-257-00	ELECT 2.2uF 20% 50V	
C449	1-126-163-11	ELECT 4.7uF 20% 50V	
C485	1-136-159-00	FILM 0.033uF 5% 50V	
C486	1-124-250-00	ELECT 0.15uF 20% 50V	
C487	1-126-163-11	ELECT 4.7uF 20% 50V	
C488	1-106-363-00	MYLAR 6800PF 5% 200V	
C489	1-136-159-00	FILM 0.033uF 5% 50V	
C490	1-126-163-11	ELECT 4.7uF 20% 50V	
C491	1-126-177-11	ELECT 100uF 20% 10V	
C494	1-126-163-11	ELECT 4.7uF 20% 50V	
C495	1-126-301-11	ELECT 1uF 20% 50V	
C496	1-130-491-00	MYLAR 0.047uF 5% 50V	
C498	1-126-163-11	ELECT 4.7uF 20% 50V	
C499	1-124-250-00	ELECT 0.15uF 20% 50V	

< CONNECTOR >

CN101	1-691-648-11	SOCKET, CONNECTOR 15P
* CN103	1-568-858-11	SOCKET, CONNECTOR 15P
* CN105	1-568-856-11	SOCKET, CONNECTOR 13P
* CN111	1-565-480-11	CONNECTOR, BOARD TO BOARD 4P
* CN113	1-565-480-11	CONNECTOR, BOARD TO BOARD 4P

CONT 2

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
< DIODE >				R112	1-249-425-11	CARBON	4. 7K 5% 1/4W
D101	8-719-987-63	DIODE 1N4148M		R113	1-249-425-11	CARBON	4. 7K 5% 1/4W
D104	8-719-987-63	DIODE 1N4148M		R114	1-249-425-11	CARBON	4. 7K 5% 1/4W
D105	8-719-987-63	DIODE 1N4148M		R115	1-249-437-11	CARBON	47K 5% 1/4W
D106	8-719-987-63	DIODE 1N4148M		R116	1-249-437-11	CARBON	47K 5% 1/4W
D107	8-719-987-63	DIODE 1N4148M		R117	1-249-437-11	CARBON	47K 5% 1/4W
D108	8-719-987-63	DIODE 1N4148M		R118	1-249-437-11	CARBON	47K 5% 1/4W
D110	8-719-987-63	DIODE 1N4148M		R119	1-249-437-11	CARBON	47K 5% 1/4W
D111	8-719-987-63	DIODE 1N4148M		R120	1-249-437-11	CARBON	47K 5% 1/4W
D112	8-719-914-11	DIODE HZ4ALL		R121	1-249-437-11	CARBON	47K 5% 1/4W
D116	8-719-987-63	DIODE 1N4148M		R122	1-249-437-11	CARBON	47K 5% 1/4W
D118	8-719-014-48	DIODE UZP-4. 7B		R123	1-249-437-11	CARBON	47K 5% 1/4W
D120	8-719-301-37	LED SEL2210S-CD (E)		R125	1-249-425-11	CARBON	4. 7K 5% 1/4W
D121	8-719-301-49	LED SEL2810A		R126	1-249-437-11	CARBON	47K 5% 1/4W
				R127	1-249-437-11	CARBON	47K 5% 1/4W
< INDICATOR TUBE >				R128	1-249-437-11	CARBON	47K 5% 1/4W
FL101	1-519-727-11	INDICATOR TUBE, FLUORESCENT		R129	1-249-437-11	CARBON	47K 5% 1/4W
< IC >				R130	1-249-437-11	CARBON	47K 5% 1/4W
IC101	8-759-062-41	IC uPD75206GF-722-3BE		R131	1-249-437-11	CARBON	47K 5% 1/4W
IC405	8-759-634-50	IC M5218AL		R132	1-249-437-11	CARBON	47K 5% 1/4W
< TRANSISTOR >				R133	1-249-437-11	CARBON	47K 5% 1/4W
Q101	8-729-900-36	TRANSISTOR DTC124ES		R134	1-249-437-11	CARBON	47K 5% 1/4W
Q102	8-729-900-63	TRANSISTOR DTA124ES		R135	1-249-405-11	CARBON	100 5% 1/4W
Q103	8-729-620-05	TRANSISTOR 2SC2603-EF		R136	1-249-405-11	CARBON	100 5% 1/4W
Q104	8-729-900-63	TRANSISTOR DTA124ES (E)		R138	1-249-437-11	CARBON	47K 5% 1/4W
Q105	8-729-900-36	TRANSISTOR DTC124ES		R139	1-249-437-11	CARBON	47K 5% 1/4W
Q435	8-729-224-61	TRANSISTOR 2SK246-Y		R141	1-249-405-11	CARBON	100 5% 1/4W
Q436	8-729-620-05	TRANSISTOR 2SC2603-EF		R144	1-249-411-11	CARBON	330 5% 1/4W
Q485	8-729-224-61	TRANSISTOR 2SK246-Y		R145	1-249-417-11	CARBON	1K 5% 1/4W
Q486	8-729-620-05	TRANSISTOR 2SC2603-EF		R156	1-249-437-11	CARBON	47K 5% 1/4W
< RESISTOR >				R157	1-249-437-11	CARBON	47K 5% 1/4W
R101	1-247-903-00	CARBON 1M 5% 1/4W		R158	1-249-437-11	CARBON	47K 5% 1/4W
R102	1-249-429-11	CARBON 10K 5% 1/4W		R159	1-249-437-11	CARBON	47K 5% 1/4W
R103	1-247-895-00	CARBON 470K 5% 1/4W		R160	1-249-437-11	CARBON	47K 5% 1/4W
R105	1-249-409-11	CARBON 220 5% 1/4W (E)		R161	1-249-437-11	CARBON	47K 5% 1/4W
R106	1-249-417-11	CARBON 1K 5% 1/4W		R162	1-249-429-11	CARBON	10K 5% 1/4W
R107	1-249-411-11	CARBON 330 5% 1/4W		R435	1-249-417-11	CARBON	1K 5% 1/4W
R108	1-249-411-11	CARBON 330 5% 1/4W		R436	1-249-429-11	CARBON	10K 5% 1/4W
R109	1-249-411-11	CARBON 330 5% 1/4W		R437	1-249-421-11	CARBON	2. 2K 5% 1/4W
R110	1-249-411-11	CARBON 330 5% 1/4W		R438	1-249-441-11	CARBON	100K 5% 1/4W
R111	1-249-425-11	CARBON 4. 7K 5% 1/4W		R439	1-249-427-11	CARBON	6. 8K 5% 1/4W
				R440	1-249-438-11	CARBON	56K 5% 1/4W
				R441	1-249-441-11	CARBON	100K 5% 1/4W
				R442	1-249-417-11	CARBON	1K 5% 1/4W
				R443	1-249-418-11	CARBON	1. 2K 5% 1/4W
				R444	1-247-883-00	CARBON	150K 5% 1/4W
				R445	1-249-412-11	CARBON	390 5% 1/4W
				R446	1-249-427-11	CARBON	6. 8K 5% 1/4W
				R447	1-249-421-11	CARBON	2. 2K 5% 1/4W

CONT 2

CONT 3

M-VOL

MAIN

Ref. No.	Part No.	Description	Remark		
R448	1-247-903-00	CARBON	1M	5%	1/4W
R449	1-249-437-11	CARBON	47K	5%	1/4W
R485	1-249-417-11	CARBON	1K	5%	1/4W
R486	1-249-429-11	CARBON	10K	5%	1/4W
R487	1-249-421-11	CARBON	2.2K	5%	1/4W
R488	1-249-441-11	CARBON	100K	5%	1/4W
R489	1-249-427-11	CARBON	6.8K	5%	1/4W
R490	1-249-438-11	CARBON	56K	5%	1/4W
R491	1-249-441-11	CARBON	100K	5%	1/4W
R492	1-249-417-11	CARBON	1K	5%	1/4W
R493	1-249-418-11	CARBON	1.2K	5%	1/4W
R494	1-247-883-00	CARBON	150K	5%	1/4W
R495	1-249-412-11	CARBON	390	5%	1/4W
R496	1-249-427-11	CARBON	6.8K	5%	1/4W
< VARIABLE RESISTOR >					
RV401	1-241-858-11	RES, VAR, CARBON 100K/100K (BASS)			
RV402	1-241-858-11	RES, VAR, CARBON 100K/100K (TREBLE)			
RV403	1-241-022-11	RES, VAR, CARBON 150K/150K (BALANCE)			
< SWITCH >					
S101	1-554-303-21	SWITCH, TACTILE (+ (REAR LEVEL))			
S102	1-554-303-21	SWITCH, TACTILE (- (REAR LEVEL))			
S103	1-554-303-21	SWITCH, TACTILE (+ (CENTER LEVEL))			
S104	1-554-303-21	SWITCH, TACTILE (- (CENTER LEVEL))			
S105	1-554-303-21	SWITCH, TACTILE (DELAY TIME (SURROUND DOLBY))			
S106	1-554-303-21	SWITCH, TACTILE (VIDEO 2)			
S107	1-554-303-21	SWITCH, TACTILE (VIDEO 3/LD)			
S108	1-554-303-21	SWITCH, TACTILE (VIDEO 4)			
S109	1-554-303-21	SWITCH, TACTILE (MODE (SURROUND DOLBY))			
S110	1-554-303-21	SWITCH, TACTILE (PRO LOGIC MODE (SURROUND DOLBY))			
S112	1-554-303-21	SWITCH, TACTILE (TUNER)			
S113	1-554-303-21	SWITCH, TACTILE (CD)			
S114	1-554-303-21	SWITCH, TACTILE (TAPE/DAT)			
S115	1-554-303-21	SWITCH, TACTILE (VIDEO 1)			
S118	1-554-303-21	SWITCH, TACTILE (PHONO)			
< VIBRATOR >					
X101	1-577-101-11	VIBRATOR, CERAMIC			

*	1-643-165-11	CONT 3 BOARD			

< CONNECTOR >					
* CN112	1-565-295-11	PLUG, CONNECTOR 4P			

Ref. No.	Part No.	Description	Remark		
< SWITCH >					
S111	1-554-303-21	SWITCH, TACTILE (SURROUND)			
S116	1-554-303-21	SWITCH, TACTILE (DBFB)			

*	1-643-166-11	M-VOL BOARD			

< CAPACITOR >					
C107	1-124-273-00	ELECT	3.3uF	20%	50V
C108	1-130-483-00	MYLAR	0.01uF	5%	50V
C109	1-130-483-00	MYLAR	0.01uF	5%	50V
< CONNECTOR >					
* CN107	1-568-824-11	SOCKET, CONNECTOR 5P			
* CN301	1-568-834-11	SOCKET, CONNECTOR 15P			
< DIODE >					
D130	8-719-933-41	DIODE HZS6C3L			
< IC >					
IC102	8-759-820-62	IC LB1639			
< TRANSISTOR >					
Q100	8-729-140-98	TRANSISTOR 2SD773-34			
< RESISTOR >					
R146	1-249-425-11	CARBON	4.7K	5%	1/4W
R147	1-249-425-11	CARBON	4.7K	5%	1/4W
R154	1-249-414-11	CARBON	560	5%	1/4W
R155	1-249-421-11	CARBON	2.2K	5%	1/4W
< VARIABLE RESISTOR >					
RV301	1-241-816-11	RES, VAR, CARBON 100KX4 (VOLUME)			

*	A-4347-299-A	MAIN BOARD, COMPLETE			

*	4-942-204-01	BOARD PLATE, GROUND			
< CAPACITOR >					
C001	1-164-062-11	CERAMIC	47PF	5%	50V
C051	1-164-062-11	CERAMIC	47PF	5%	50V
C202	1-164-072-11	CERAMIC	120PF	5%	50V
C203	1-124-907-11	ELECT	10uF	20%	50V
C204	1-162-284-31	CERAMIC	150PF	10%	50V

MAIN

Ref. No.	Part No.	Description	Remark		
C205	1-124-925-11	ELECT	2.2uF	20%	100V
C206	1-130-480-00	MYLAR	0.0056uF	5%	50V
C207	1-106-347-00	MYLAR	1500PF	5%	200V
C208	1-124-902-00	ELECT	0.47uF	20%	50V
C209	1-161-494-00	CERAMIC	0.022uF		25V
C210	1-124-477-11	ELECT	47uF	20%	25V
C231	1-162-294-31	CERAMIC	0.001uF	10%	50V
C252	1-164-072-11	CERAMIC	120PF	5%	50V
C253	1-124-907-11	ELECT	10uF	20%	50V
C254	1-162-284-31	CERAMIC	150PF	10%	50V
C255	1-124-925-11	ELECT	2.2uF	20%	100V
C256	1-130-480-00	MYLAR	0.0056uF	5%	50V
C257	1-106-347-00	MYLAR	1500PF	5%	200V
C258	1-124-902-00	ELECT	0.47uF	20%	50V
C259	1-161-494-00	CERAMIC	0.022uF		25V
C260	1-124-477-11	ELECT	47uF	20%	25V
C301	1-124-907-11	ELECT	10uF	20%	50V
C302	1-164-062-11	CERAMIC	47PF	5%	50V
C303	1-124-907-11	ELECT	10uF	20%	50V
C308	1-130-480-00	MYLAR	0.0056uF	5%	50V
C309	1-106-363-00	MYLAR	6800PF	5%	200V
C310	1-164-082-11	CERAMIC	560PF	10%	50V
C311	1-124-907-11	ELECT	10uF	20%	50V
C312	1-164-083-11	CERAMIC	680PF	10%	50V
C313	1-136-167-00	FILM	0.15uF	5%	50V
C314	1-164-075-11	CERAMIC	150PF	10%	50V
C315	1-130-487-00	MYLAR	0.022uF	5%	50V
C316	1-162-294-31	CERAMIC	0.001uF	10%	50V
C317	1-124-927-11	ELECT	4.7uF	20%	100V
C318	1-130-485-00	MYLAR	0.015uF	5%	50V
C319	1-124-907-11	ELECT	10uF	20%	50V
C320	1-124-907-11	ELECT	10uF	20%	50V
C321	1-124-907-11	ELECT	10uF	20%	50V
C322	1-130-489-00	MYLAR	0.033uF	5%	50V
C323	1-106-359-00	MYLAR	4700PF	5%	200V
C324	1-130-477-00	MYLAR	0.0033uF	5%	50V
C325	1-136-163-00	FILM	0.068uF	5%	50V
C326	1-136-169-00	FILM	0.22uF	5%	50V
C329	1-124-472-11	ELECT	470uF	20%	10V
C330	1-124-927-11	ELECT	4.7uF	20%	100V
C331	1-162-294-31	CERAMIC	0.001uF	10%	50V
C332	1-130-487-00	MYLAR	0.022uF	5%	50V
C333	1-164-075-11	CERAMIC	150PF	10%	50V
C334	1-126-176-11	ELECT	220uF	20%	10V
C335	1-126-176-11	ELECT	220uF	20%	10V
C336	1-124-120-11	ELECT	220uF	20%	25V
C337	1-136-165-00	FILM	0.1uF	5%	50V
C338	1-124-443-00	ELECT	100uF	20%	10V
C339	1-124-907-11	ELECT	10uF	20%	50V

Ref. No.	Part No.	Description	Remark		
C340	1-136-165-00	FILM	0.1uF	5%	50V
C341	1-164-083-11	CERAMIC	680PF	10%	50V
C342	1-130-483-00	MYLAR	0.01uF	5%	50V
C343	1-124-907-11	ELECT	10uF	20%	50V
C344	1-124-907-11	ELECT	10uF	20%	50V
C345	1-124-907-11	ELECT	10uF	20%	50V
C346	1-124-907-11	ELECT	10uF	20%	50V
C347	1-136-173-00	FILM	0.47uF	5%	50V
C348	1-124-252-00	ELECT	0.33uF	20%	50V
C349	1-136-165-00	FILM	0.1uF	5%	50V
C350	1-136-165-00	FILM	0.1uF	5%	50V
C351	1-124-907-11	ELECT	10uF	20%	50V
C352	1-164-062-11	CERAMIC	47PF	5%	50V
C353	1-124-907-11	ELECT	10uF	20%	50V
C354	1-164-083-11	CERAMIC	680PF	10%	50V
C355	1-124-925-11	ELECT	2.2uF	20%	100V
C356	1-124-925-11	ELECT	2.2uF	20%	100V
C357	1-136-167-00	FILM	0.15uF	5%	50V
C358	1-123-382-00	ELECT	3.3uF	20%	100V
C359	1-136-167-00	FILM	0.15uF	5%	50V
C360	1-126-176-11	ELECT	220uF	20%	10V
C361	1-124-910-11	ELECT	47uF	20%	50V
C362	1-124-907-11	ELECT	10uF	20%	50V
C363	1-124-907-11	ELECT	10uF	20%	50V
C364	1-124-252-00	ELECT	0.33uF	20%	50V
C365	1-136-165-00	FILM	0.1uF	5%	50V
C366	1-136-165-00	FILM	0.1uF	5%	50V
C367	1-164-083-11	CERAMIC	680PF	10%	50V
C368	1-124-925-11	ELECT	2.2uF	20%	100V
C369	1-124-925-11	ELECT	2.2uF	20%	100V
C370	1-136-167-00	FILM	0.15uF	5%	50V
C371	1-123-382-00	ELECT	3.3uF	20%	100V
C372	1-136-167-00	FILM	0.15uF	5%	50V
C374	1-124-927-11	ELECT	4.7uF	20%	100V
C378	1-136-169-00	FILM	0.22uF	5%	50V
C383	1-136-169-00	FILM	0.22uF	5%	50V
C385	1-130-489-00	MYLAR	0.033uF	5%	50V
C398	1-124-907-11	ELECT	10uF	20%	50V
C399	1-124-907-11	ELECT	10uF	20%	50V
C400	1-124-907-11	ELECT	10uF	20%	50V
C402	1-164-058-11	CERAMIC	33PF	5%	50V
C403	1-164-070-11	CERAMIC	100PF	5%	50V
C408	1-124-907-11	ELECT	10uF	20%	50V
C409	1-124-907-11	ELECT	10uF	20%	50V
C410	1-124-927-11	ELECT	4.7uF	20%	100V
C411	1-124-927-11	ELECT	4.7uF	20%	100V
C412	1-124-927-11	ELECT	4.7uF	20%	100V
C413	1-124-927-11	ELECT	4.7uF	20%	100V

Ref. No.	Part No.	Description	Remark		
C414	1-124-477-11	ELECT	47uF	20%	25V
C416	1-124-250-00	ELECT	0.15uF	20%	50V
C450	1-124-907-11	ELECT	10uF	20%	50V
C452	1-164-058-11	CERAMIC	33PF	5%	50V
C453	1-164-070-11	CERAMIC	100PF	5%	50V
C458	1-124-907-11	ELECT	10uF	20%	50V
C459	1-124-907-11	ELECT	10uF	20%	50V
C460	1-124-927-11	ELECT	4.7uF	20%	100V
C461	1-124-927-11	ELECT	4.7uF	20%	100V
C462	1-124-927-11	ELECT	4.7uF	20%	100V
C463	1-124-927-11	ELECT	4.7uF	20%	100V
C464	1-124-250-00	ELECT	0.15uF	20%	50V
C465	1-124-250-00	ELECT	0.15uF	20%	50V
C1001	1-164-097-11	CERAMIC	0.022uF		50V
C1002	1-164-097-11	CERAMIC	0.022uF		50V
C1003	1-164-093-11	CERAMIC	0.0047uF	10%	25V
C1004	1-164-093-11	CERAMIC	0.0047uF	10%	25V
C1005	1-164-097-11	CERAMIC	0.022uF		50V
C1006	1-124-903-11	ELECT	1uF	20%	50V
C1007	1-124-903-11	ELECT	1uF	20%	50V
C1008	1-162-286-31	CERAMIC	220PF	10%	50V
C1009	1-162-286-31	CERAMIC	220PF	10%	50V

< CONNECTOR >

* CN102	1-568-834-11	SOCKET, CONNECTOR 15P
* CN104	1-568-834-11	SOCKET, CONNECTOR 15P
* CN106	1-568-832-11	SOCKET, CONNECTOR 13P
* CN108	1-568-824-11	SOCKET, CONNECTOR 5P
CN110	1-566-211-11	PIN, CONNECTOR 4P (POWER AMP CONTROL OUT)
* CN302	1-568-834-11	SOCKET, CONNECTOR 15P
* CN304	1-568-824-11	SOCKET, CONNECTOR 5P
* CN502	1-562-358-00	CONNECTOR (SOCKET) 6P
CN902	1-573-147-11	HOUSING, CONNECTOR 12P

< DIODE >

D399	8-719-987-63	DIODE	1N4148M
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< IC >

IC106	8-759-805-14	IC	LC7822
IC200	8-759-634-51	IC	M5218AP
IC204	8-759-801-01	IC	LC4966
IC254	8-759-801-01	IC	LC4966
IC301	8-759-634-50	IC	M5218AL
IC302	8-759-801-01	IC	LC4966
IC303	8-759-823-63	IC	LV1001M
IC304	8-759-821-13	IC	LM3364K-15
IC305	8-759-047-15	IC	LA2780
IC307	8-759-634-50	IC	M5218AL

Ref. No.	Part No.	Description	Remark
IC309	8-759-801-01	IC	LC4966
IC401	8-759-634-50	IC	M5218AL
IC402	8-759-634-50	IC	M5218AL
IC403	8-759-634-51	IC	M5218AP
IC404	8-759-820-11	IC	LC7535

< COIL >

L301	1-410-521-11	INDUCTOR	100uH
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< JACK >

PJ200	1-565-320-61	JACK, PIN 6P (PHONO/TUNER/CD)
PJ201	1-565-320-61	JACK, PIN 6P (TAPE/DAT/VIDEO 3/LD)
PJ202	1-565-258-11	JACK, PIN 4P (VIDEO 2)
PJ203	1-565-258-11	JACK, PIN 4P (VIDEO 1)
PJ204	1-563-562-11	JACK, PIN 4P (ADAPTOR)

PJ401	1-565-258-11	JACK, PIN 4P (OUTPUT)
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< TRANSISTOR >

Q106	8-729-900-36	TRANSISTOR	DTC124ES
Q107	8-729-900-36	TRANSISTOR	DTC124ES
Q108	8-729-900-36	TRANSISTOR	DTC124ES
Q301	8-729-900-36	TRANSISTOR	DTC124ES
Q302	8-729-900-63	TRANSISTOR	DTA124ES
Q303	8-729-900-36	TRANSISTOR	DTC124ES
Q304	8-729-141-30	TRANSISTOR	2SC3623A-LK
Q305	8-729-209-15	TRANSISTOR	2SD2012
Q331	8-729-900-36	TRANSISTOR	DTC124ES
Q332	8-729-900-36	TRANSISTOR	DTC124ES
Q333	8-729-900-63	TRANSISTOR	DTA124ES
Q403	8-729-141-26	TRANSISTOR	2SC3622A-LK
Q404	8-729-141-26	TRANSISTOR	2SC3622A-LK
Q406	8-729-141-26	TRANSISTOR	2SC3622A-LK
Q408	8-729-900-63	TRANSISTOR	DTA124ES
Q409	8-729-900-63	TRANSISTOR	DTA124ES
Q410	8-729-900-63	TRANSISTOR	DTA124ES
Q453	8-729-141-26	TRANSISTOR	2SC3622A-LK

< RESISTOR >

R142	1-249-405-11	CARBON	100	5%	1/4W
R143	1-249-405-11	CARBON	100	5%	1/4W
R144	1-249-405-11	CARBON	100	5%	1/4W
R202	1-249-411-11	CARBON	330	5%	1/4W
R203	1-249-437-11	CARBON	47K	5%	1/4W
R204	1-249-416-11	CARBON	820	5%	1/4W
R205	1-247-897-11	CARBON	560K	5%	1/4W
R206	1-249-437-11	CARBON	47K	5%	1/4W
R207	1-249-441-11	CARBON	100K	5%	1/4W
R208	1-249-409-11	CARBON	220	5%	1/4W

MAIN

Ref. No.	Part No.	Description	Remark		
R209	1-249-417-11	CARBON	1K	5%	1/4W
R210	1-249-426-11	CARBON	5. 6K	5%	1/4W
R211	1-249-417-11	CARBON	1K	5%	1/4W
R212	1-249-417-11	CARBON	1K	5%	1/4W
R213	1-249-426-11	CARBON	5. 6K	5%	1/4W
R214	1-249-417-11	CARBON	1K	5%	1/4W
R215	1-249-417-11	CARBON	1K	5%	1/4W
R216	1-249-417-11	CARBON	1K	5%	1/4W
R217	1-249-417-11	CARBON	1K	5%	1/4W
R218	1-249-405-11	CARBON	100	5%	1/4W
R219	1-249-405-11	CARBON	100	5%	1/4W
R220	1-249-433-11	CARBON	22K	5%	1/4W
R221	1-249-433-11	CARBON	22K	5%	1/4W
R224	1-249-429-11	CARBON	10K	5%	1/4W
R252	1-249-411-11	CARBON	330	5%	1/4W
R253	1-249-437-11	CARBON	47K	5%	1/4W
R254	1-249-416-11	CARBON	820	5%	1/4W
R255	1-247-897-11	CARBON	560K	5%	1/4W
R256	1-249-437-11	CARBON	47K	5%	1/4W
R257	1-249-441-11	CARBON	100K	5%	1/4W
R258	1-249-409-11	CARBON	220	5%	1/4W
R259	1-249-417-11	CARBON	1K	5%	1/4W
R260	1-249-426-11	CARBON	5. 6K	5%	1/4W
R261	1-249-417-11	CARBON	1K	5%	1/4W
R262	1-249-417-11	CARBON	1K	5%	1/4W
R263	1-249-426-11	CARBON	5. 6K	5%	1/4W
R264	1-249-417-11	CARBON	1K	5%	1/4W
R265	1-249-417-11	CARBON	1K	5%	1/4W
R266	1-249-417-11	CARBON	1K	5%	1/4W
R267	1-249-417-11	CARBON	1K	5%	1/4W
R268	1-249-405-11	CARBON	100	5%	1/4W
R269	1-249-405-11	CARBON	100	5%	1/4W
R270	1-249-433-11	CARBON	22K	5%	1/4W
R271	1-249-433-11	CARBON	22K	5%	1/4W
R300	1-247-887-00	CARBON	220K	5%	1/4W
R301	1-247-887-00	CARBON	220K	5%	1/4W
R302	1-247-887-00	CARBON	220K	5%	1/4W
R303	1-249-405-11	CARBON	100	5%	1/4W
R309	1-249-428-11	CARBON	8. 2K	5%	1/4W
R310	1-249-428-11	CARBON	8. 2K	5%	1/4W
R311	1-249-431-11	CARBON	15K	5%	1/4W
R312	1-249-428-11	CARBON	8. 2K	5%	1/4W
R313	1-249-436-11	CARBON	39K	5%	1/4W
R314	1-249-423-11	CARBON	3. 3K	5%	1/4W
R315	1-249-437-11	CARBON	47K	5%	1/4W
R316	1-247-903-00	CARBON	1M	5%	1/4W
R317	1-249-429-11	CARBON	10K	5%	1/4W
R318	1-247-887-00	CARBON	220K	5%	1/4W
R319	1-249-429-11	CARBON	10K	5%	1/4W

Ref. No.	Part No.	Description	Remark		
R320	1-249-429-11	CARBON	10K	5%	1/4W
R321	1-249-429-11	CARBON	10K	5%	1/4W
R325	1-249-433-11	CARBON	22K	5%	1/4W
R326	1-249-433-11	CARBON	22K	5%	1/4W
R333	1-249-433-11	CARBON	22K	5%	1/4W
R342	1-249-427-11	CARBON	6. 8K	5%	1/4W
R343	1-249-427-11	CARBON	6. 8K	5%	1/4W
R345	1-249-433-11	CARBON	22K	5%	1/4W
R349	1-249-423-11	CARBON	3. 3K	5%	1/4W
R350	1-247-887-00	CARBON	220K	5%	1/4W
R351	1-247-887-00	CARBON	220K	5%	1/4W
R352	1-247-887-00	CARBON	220K	5%	1/4W
R353	1-249-405-11	CARBON	100	5%	1/4W
R355	1-249-429-11	CARBON	10K	5%	1/4W
R356	1-249-429-11	CARBON	10K	5%	1/4W
R357	1-249-433-11	CARBON	22K	5%	1/4W
R358	1-247-887-00	CARBON	220K	5%	1/4W
R359	1-247-887-00	CARBON	220K	5%	1/4W
R360	1-247-887-00	CARBON	220K	5%	1/4W
R361	1-247-887-00	CARBON	220K	5%	1/4W
R362	1-249-433-11	CARBON	22K	5%	1/4W
R363	1-249-421-11	CARBON	2. 2K	5%	1/4W
R364	1-247-852-11	CARBON	7. 5K	5%	1/4W
R365	1-249-431-11	CARBON	15K	5%	1/4W
R366	1-249-437-11	CARBON	47K	5%	1/4W
R367	1-249-429-11	CARBON	10K	5%	1/4W
R368	1-249-421-11	CARBON	2. 2K	5%	1/4W
R369	1-249-437-11	CARBON	47K	5%	1/4W
R370	1-249-425-11	CARBON	4. 7K	5%	1/4W
R371	1-249-430-11	CARBON	12K	5%	1/4W
R373	1-247-887-00	CARBON	220K	5%	1/4W
R374	1-247-887-00	CARBON	220K	5%	1/4W
R376	1-247-887-00	CARBON	220K	5%	1/4W
R377	1-247-887-00	CARBON	220K	5%	1/4W
R378	1-249-429-11	CARBON	10K	5%	1/4W
R380	1-249-421-11	CARBON	2. 2K	5%	1/4W
R381	1-247-852-11	CARBON	7. 5K	5%	1/4W
R382	1-249-431-11	CARBON	15K	5%	1/4W
R385	1-249-413-11	CARBON	470	5%	1/4W
R398	1-249-429-11	CARBON	10K	5%	1/4W
R399	1-249-417-11	CARBON	1K	5%	1/4W
R401	1-247-887-00	CARBON	220K	5%	1/4W
R402	1-249-429-11	CARBON	10K	5%	1/4W
R410	1-249-421-11	CARBON	2. 2K	5%	1/4W
R414	1-249-429-11	CARBON	10K	5%	1/4W
R415	1-249-423-11	CARBON	3. 3K	5%	1/4W
R416	1-249-436-11	CARBON	39K	5%	1/4W
R417	1-249-416-11	CARBON	820	5%	1/4W

MAIN	PS
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Ref. No.	Part No.	Description	Remark		
R418	1-249-417-11	CARBON	1K	5%	1/4W
R420	1-249-417-11	CARBON	1K	5%	1/4W
R421	1-249-417-11	CARBON	1K	5%	1/4W
R423	1-249-417-11	CARBON	1K	5%	1/4W
R424	1-249-417-11	CARBON	1K	5%	1/4W
R425	1-249-441-11	CARBON	100K	5%	1/4W
R427	1-247-887-00	CARBON	220K	5%	1/4W
R428	1-249-429-11	CARBON	10K	5%	1/4W
R429	1-249-439-11	CARBON	68K	5%	1/4W
R430	1-249-429-11	CARBON	10K	5%	1/4W
R431	1-249-441-11	CARBON	100K	5%	1/4W
R432	1-249-417-11	CARBON	1K	5%	1/4W
R440	1-249-437-11	CARBON	47K	5%	1/4W
R442	1-249-437-11	CARBON	47K	5%	1/4W
R447	1-249-437-11	CARBON	47K	5%	1/4W
R451	1-247-887-00	CARBON	220K	5%	1/4W
R452	1-249-429-11	CARBON	10K	5%	1/4W
R460	1-249-421-11	CARBON	2.2K	5%	1/4W
R464	1-249-429-11	CARBON	10K	5%	1/4W
R465	1-249-423-11	CARBON	3.3K	5%	1/4W
R466	1-249-436-11	CARBON	39K	5%	1/4W
R467	1-249-416-11	CARBON	820	5%	1/4W
R468	1-249-417-11	CARBON	1K	5%	1/4W
R477	1-247-887-00	CARBON	220K	5%	1/4W
R478	1-249-429-11	CARBON	10K	5%	1/4W
R479	1-249-439-11	CARBON	68K	5%	1/4W
R480	1-249-429-11	CARBON	10K	5%	1/4W
R1001	1-249-417-11	CARBON	1K	5%	1/4W
R1002	1-249-417-11	CARBON	1K	5%	1/4W
< VIBRATOR >					
X301	1-579-125-11	VIBRATOR, CERAMIC			

*	A-4347-303-A	PS BOARD, COMPLETE (US, Canadian)			
*	A-4347-309-A	PS BOARD, COMPLETE (E)			

*	3-309-144-21	HEAT SINK			
< CAPACITOR >					
C901	1-126-104-11	ELECT	470uF	20%	35V
C902	1-124-913-11	ELECT	470uF	20%	50V
C903	1-130-487-00	MYLAR	0.022uF	5%	50V
C904	1-124-557-11	ELECT	1000uF	20%	25V
C905	1-124-480-11	ELECT	470uF	20%	25V
C906	1-124-903-11	ELECT	1uF	20%	50V
C907	1-124-903-11	ELECT	1uF	20%	50V

Ref. No.	Part No.	Description	Remark		
C908	1-124-907-11	ELECT	10uF	20%	50V
C909	1-124-907-11	ELECT	10uF	20%	50V
C910	1-124-907-11	ELECT	10uF	20%	50V
C911	1-124-477-11	ELECT	47uF	20%	25V
C912	1-130-487-00	MYLAR	0.022uF	5%	50V
C913	1-130-487-00	MYLAR	0.022uF	5%	50V
C914	1-130-487-00	MYLAR	0.022uF	5%	50V
C915	1-130-487-00	MYLAR	0.022uF	5%	50V
C916	1-126-936-11	ELECT	3300uF	20%	16V
C917	1-124-477-11	ELECT	47uF	20%	25V
C918	1-124-477-11	ELECT	47uF	20%	25V
C919	1-124-903-11	ELECT	1uF	20%	50V
C920	1-130-487-00	MYLAR	0.022uF	5%	50V
C921	1-124-464-11	ELECT	0.22uF	20%	50V
△C922	1-161-744-00	CERAMIC	0.01uF		400V
C923	1-162-282-31	CERAMIC	100PF	10%	50V
C927	1-124-907-11	ELECT	10uF	20%	50V
C928	1-124-907-11	ELECT	10uF	20%	50V
< CONNECTOR >					
CN901	1-573-147-11	HOUSING, CONNECTOR 12P			
< OUTLET >					
△CNJ901	1-540-059-11	OUTLET, AC (POLAR) (US, Canadian)			
△CNJ901	1-540-040-11	OUTLET, AC (NONPOLAR) (2P) (E)			
△CNJ902	1-540-059-11	OUTLET, AC (POLAR) (US, Canadian)			
△CNJ902	1-540-040-11	OUTLET, AC (NONPOLAR) (2P) (E)			
< CORD >					
△CNP901	1-574-902-11	CORD, POWER (E)			
△CNP901	1-590-771-11	CORD, POWER (US, Canadian)			
< CONNECTOR >					
* CNP902 1-573-565-11 PIN, CONNECTOR 5P (E)					
< DIODE >					
D901	8-719-200-82	DIODE	11ES2		
D902	8-719-200-82	DIODE	11ES2		
D903	8-719-015-84	DIODE	UZP-22BC		
D904	8-719-200-82	DIODE	11ES2		
D905	8-719-200-82	DIODE	11ES2		
D906	8-719-200-82	DIODE	11ES2		
D907	8-719-200-82	DIODE	11ES2		
D910	8-719-933-41	DIODE	HZS6C3L		
D911	8-719-200-82	DIODE	11ES2		
D912	8-719-200-82	DIODE	11ES2		
D913	8-719-200-82	DIODE	11ES2		
D914	8-719-987-63	DIODE	1N4148M		

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

PS VIDEO

Ref. No.	Part No.	Description	Remark
D915	8-719-987-63	DIODE 1N4148M	
D916	8-719-933-41	DIODE HZS6C3L	
D917	8-719-933-41	DIODE HZS6C3L	
D918	8-719-914-11	DIODE HZ4ALL	
D919	8-719-987-63	DIODE 1N4148M	
D930	8-719-987-63	DIODE 1N4148M	
D961	8-719-200-82	DIODE 11ES2	
< IC >			
IC901	8-759-604-39	IC M5F78M12	
IC902	8-759-604-45	IC M5F79M12	
< TRANSISTOR >			
Q902	8-729-900-63	TRANSISTOR DTA124ES	
Q903	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q905	8-729-209-15	TRANSISTOR 2SD2012	
Q906	8-729-141-83	TRANSISTOR 2SB1094-LK	
Q907	8-729-209-15	TRANSISTOR 2SD2012	
Q908	8-729-900-63	TRANSISTOR DTA124ES	
Q909	8-729-801-93	TRANSISTOR 2SD1387	
Q910	8-729-801-93	TRANSISTOR 2SD1387	
Q911	8-729-209-15	TRANSISTOR 2SD2012	
Q912	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q913	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q914	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q915	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q916	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q930	8-729-900-36	TRANSISTOR DTC124ES	
< RESISTOR >			
R900	1-247-842-11	CARBON 3K 5% 1/4W	
△R903	1-215-888-00	METAL OXIDE 220 5% 2W F	
R905	1-249-425-11	CARBON 4.7K 5% 1/4W	
△R907	1-216-454-11	METAL OXIDE 390 5% 2W F	
R908	1-249-405-11	CARBON 100 5% 1/4W	
R909	1-249-423-11	CARBON 3.3K 5% 1/4W	
R910	1-249-405-11	CARBON 100 5% 1/4W	
R911	1-249-429-11	CARBON 10K 5% 1/4W	
R912	1-249-437-11	CARBON 47K 5% 1/4W	
R913	1-249-437-11	CARBON 47K 5% 1/4W	
R915	1-249-417-11	CARBON 1K 5% 1/4W	
R916	1-249-437-11	CARBON 47K 5% 1/4W	
R917	1-249-433-11	CARBON 22K 5% 1/4W	
R918	1-249-429-11	CARBON 10K 5% 1/4W	
R919	1-249-429-11	CARBON 10K 5% 1/4W	
R920	1-249-417-11	CARBON 1K 5% 1/4W	
R921	1-249-429-11	CARBON 10K 5% 1/4W	
R922	1-249-426-11	CARBON 5.6K 5% 1/4W	
R923	1-249-426-11	CARBON 5.6K 5% 1/4W	

Ref. No.	Part No.	Description	Remark
R924	1-249-425-11	CARBON 4.7K 5% 1/4W	
R925	1-249-381-11	CARBON 1 5% 1/4W	
R926	1-249-381-11	CARBON 1 5% 1/4W	
R930	1-249-421-11	CARBON 2.2K 5% 1/4W	
△R931	1-217-483-00	FUSIBLE 15 5% 1W F	
R932	1-249-417-11	CARBON 1K 5% 1/4W	
< RELAY >			
△RY901	1-515-701-11	RELAY (US, Canadian)	
△RY901	1-515-617-11	RELAY (E)	
< TRANSFORMER >			
△T901	1-450-845-11	TRANSFORMER, POWER (US, Canadian)	
△T901	1-450-846-11	TRANSFORMER, POWER (E)	
< CONNECTOR >			
* VA901	1-564-321-00	PIN, CONNECTOR 2P	

*	A-4347-300-A	VIDEO BOARD, COMPLETE	

< CAPACITOR >			
C500	1-124-927-11	ELECT 4.7uF 20% 100V	
C501	1-124-927-11	ELECT 4.7uF 20% 100V	
C502	1-124-927-11	ELECT 4.7uF 20% 100V	
C503	1-124-471-00	ELECT 1000uF 20% 6.3V	
C504	1-124-471-00	ELECT 1000uF 20% 6.3V	
C505	1-124-471-00	ELECT 1000uF 20% 6.3V	
C507	1-161-494-00	CERAMIC 0.022uF 25V	
C508	1-124-927-11	ELECT 4.7uF 20% 100V	
C509	1-124-477-11	ELECT 47uF 20% 25V	
< CONNECTOR >			
* CN501	1-569-798-11	PLUG, CONNECTOR 6P	
* CN503	1-564-336-00	PIN, CONNECTOR 2P	
CN510	1-566-213-11	PIN, CONNECTOR 4P (CONTROL S OUT)	
< DIODE >			
D803	8-719-987-63	DIODE 1N4148M	
< IC >			
IC500	8-759-991-77	IC BA7625	
< COIL >			
L500	1-410-977-11	INDUCTOR 100uH	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Lès composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

VIDEO

VIDEO 4

VS

Ref.No.	Part No.	Description	Remark
< JACK >			
PJ500	1-565-351-61	JACK, PIN 3P (VIDEO 2/VIDEO 3/LD)	
PJ501	1-565-351-61	JACK, PIN 3P (VIDEO 1/MONITOR)	
< TRANSISTOR >			
Q500	8-729-141-03	TRANSISTOR 2SA733-QP	
Q501	8-729-141-03	TRANSISTOR 2SA733-QP	
Q502	8-729-141-03	TRANSISTOR 2SA733-QP	
Q803	8-729-620-05	TRANSISTOR 2SC2603-EF	
< RESISTOR >			
R500	1-247-804-11	CARBON 75 5% 1/4W	
R501	1-247-804-11	CARBON 75 5% 1/4W	
R502	1-247-804-11	CARBON 75 5% 1/4W	
R503	1-249-403-11	CARBON 68 5% 1/4W	
R504	1-249-429-11	CARBON 10K 5% 1/4W	
R505	1-249-403-11	CARBON 68 5% 1/4W	
R506	1-249-429-11	CARBON 10K 5% 1/4W	
R507	1-249-403-11	CARBON 68 5% 1/4W	
R508	1-249-429-11	CARBON 10K 5% 1/4W	
R509	1-249-405-11	CARBON 100 5% 1/4W	
R510	1-249-405-11	CARBON 100 5% 1/4W	
R511	1-249-405-11	CARBON 100 5% 1/4W	
R512	1-249-405-11	CARBON 100 5% 1/4W	
R513	1-249-405-11	CARBON 100 5% 1/4W	
R514	1-249-405-11	CARBON 100 5% 1/4W	
R801	1-249-429-11	CARBON 10K 5% 1/4W	
R807	1-249-417-11	CARBON 1K 5% 1/4W	
R808	1-249-393-11	CARBON 10 5% 1/4W	

*	1-643-169-11	VIDEO 4 BOARD	

< CAPACITOR >			
C220	1-124-907-11	ELECT 10uF 20% 50V	
< CONNECTOR >			
* CN303	1-568-824-11	SOCKET, CONNECTOR 5P	
< JACK >			
PJ502	1-580-174-31	JACK, PIN (3P FRONT) (VIDEO 4 INPUT)	
< RESISTOR >			
R226	1-249-418-11	CARBON 1.2K 5% 1/4W	
R276	1-249-418-11	CARBON 1.2K 5% 1/4W	
R517	1-247-804-11	CARBON 75 5% 1/4W	

Ref.No.	Part No.	Description	Remark
*	1-643-171-11	VS BOARD (E)	

< CONNECTOR >			
* CNP903	1-573-565-11	PIN, CONNECTOR 5P (E)	
< SWITCH >			
△S901	1-572-009-11	SELECTOR, VOLTAGE (E)	

MISCELLANEOUS			

9	1-590-036-11	WIRE, FLAT TYPE (13 CORE)	
10	1-690-095-11	WIRE, FLAT TYPE (15 CORE)	
15	1-575-730-11	WIRE, FLAT TYPE (5 CORE)	
62	1-535-530-11	PLUG, JUMPER	
△63	1-569-007-11	ADAPTER, CONVERSION 2P (E)	

ACCESSORIES & PACKING MATERIALS			

	1-465-712-11	COMMANDER, STANDARD (RM-P312) (US, E)	
	1-558-232-21	CORD (WITH CONNECTOR) (SIRCS) 4P (US, E)	
	1-559-533-11	CORD, CONNECTION (US, E)	
	3-754-931-11	MANUAL, INSTRUCTION (ENGLISH/FRENCH) (E)	
	3-754-931-21	MANUAL, INSTRUCTION (ENGLISH) (US)	
	4-925-079-01	COVER (6), BATTERY (US, E)	
*	4-931-988-41	INDIVIDUAL CARTON (US, E)	
*	4-944-501-01	CUSHION	

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